APPLYING THE EXPERIENCE ECONOMY FRAMEWORK TO BETTER UNDERSTAND THE VISITOR EXPERIENCE AT THE NATURAL HISTORY MUSEUM OF UTAH

by

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STATEMENT OF THESIS APPROVAL

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ABSTRACT

The purpose of this study was to (1) empirically test the appropriateness of the Experience Economy (ExEc) scale in a museum setting; (2) establish whether or not a relationship exists between the ExEc realms and the cognitive variables of memory, arousal, perceived quality, and satisfaction in a museum setting; and (3) establish whether or not a relationship exists between the ExEc realms and three behavioral intentions (intention to recommend, intention to visit, engagement in information-seeking behavior) and whether the cognitive variables mediate this relationship.

The experience economy framework was found to be applicable to the fields of tourism and museum and visitor studies. The four ExEc realms (education, esthetics, escapism, entertainment) were evident in this study. While varying in terms of their importance, the ExEc dimensions were related to the cognitive variables (memory, arousal, perceived quality, satisfaction) used in previous studies. Intention to recommend was found to be a relevant behavioral intention and was related to the ExEc dimensions. Perceived quality and satisfaction were also found to be mediators in the relationship between ExEc dimensions and intention to recommend. Natural History Museum of Utah (NHMU) visitors were found to be interested in either visiting or learning more about sites they saw depicted in museum exhibits. The overarching interpretive themes of the NHMU were also recognized by some visitors to the museum.

This thesis is dedicated to my parents, Arthur and Judy Ledford. I would not have made it to this point without their unfailing love and support as well as that of my godfather, Andy Ledford.

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CHAPTER 1

INTRODUCTION

The word museum is derived from the Greek word *mouseion*, meaning "seat of the Muses" (Lewis, 2013). However, early museums were not the houses of culture and history we think of today. The first museums of Europe were developed to showcase the private collections of wealthy individuals. Objects were put on display occasionally, but they were not accessible to the public.

It was not until the mid-eighteenth century that the purpose of museums began to evolve. With the establishment of the British Museum (1753) and the Louvre (1793), museums became cultural institutions and symbols of social identity (Lewis, 2013). Today, the main purposes of museums are 1) to preserve objects that are important to the history of the human race and the natural world, and 2) to interpret the significance of the collections to the masses.

There are more than 17,500 museums operating in the United States alone (American Alliance of Museums (AAM), 2013). These museums host approximately 850 million visitors annually, more than the attendance numbers for all major league sporting events and theme parks combined (471 million; AAM, 2013). The contribution of museums to the U.S. economy is also an estimated $21 billion annually (AAM, 2013). Furthermore, because the U.S. Travel Association has reported that over 23% of all

domestic travel includes participation in cultural and heritage activities, museums are likely a significant draw to tourism destinations (AAM, 2013).

The state of Utah hosts more than 20 million domestic and international tourists annually, who spend approximately 7 billion dollars in the state (Utah Tourism Industry Coalition, 2012). Even though Salt Lake City functions primarily as a gateway city to other destinations, as Utah's capital it is home to numerous museums for visitors to enjoy, including the Natural History Museum of Utah (NHMU).

The NHMU was established in 1963 by the Utah State Legislature and opened in 1969 in the former George Thomas Library building on the campus of the University of Utah. Because the state of Utah has such a rich natural history, the museum has never had adequate space to display its entire collection. This changed when plans were made to build a new museum with enough space to adequately showcase the NHMU's collection.

In 2011, the museum opened in the Rio Tinto Center, nestled into the foothills of the Wasatch Mountains, with 44,000 square feet of exhibit space (Rothstein, 2012). After the museum had been open for 1 year, its administrators began to develop an overarching evaluation framework. This framework allows the museum's staff to measure whether their strategic goals are being met (Appendix A) as well as gaining an understanding of the museum's impact on its visitors and community.

One recent piece of this framework was a visitor experience study aimed at evaluating the effectiveness of the museum's interpretive efforts. The overarching goal of the NHMU's exhibits is for visitors to develop a connection to Utah's changing landscape and natural history (Appelbaum & Associates, 2008). The NHMU sees their

visitors' experiences as encompassing more than just their physical time in the museum. Ideally, they envision their visitors' museum experience as "book-ended" by a virtual experience through the museum's website (Appelbaum & Associates, 2008). For example, potential visitors can use the available information to develop expectations for their visit by buying tickets or looking up information on special exhibits or upcoming events. Then, following their visit, museum guests can refer back to the website for more information on the objects/information/displays, etc. they have experienced, and on the areas of Utah they have seen depicted.

Museums' interpretive efforts serve as their primary method of communication with visitors. As part of its overall interpretive plan for the museum, the NHMU intends to communicate four themes with their exhibits: Evolution, Ecology, Diversity, and Making a Difference (Appelbaum & Associates, 2008). Overall, the museum wants their visitor experience to be memorable, hands-on, engaging, and multilayered (Appelbaum & Associates, 2008).

As a science museum, the NHMU has broken the traditional mold. Many museums, not just science museums, arrange their objects within their historical or scientific classification. For instance, in an art museum the eighteenth century French painters would be on display together, or in a science museum each "ology" would be in a self-contained exhibit. However, at the NHMU, each exhibit is defined broadly in terms such as the "Sky." The "Sky" exhibit is informed by disciplines such as astronomy and meteorology, but also includes objects of an anthropological nature and describes how Utah Native American tribes understood the stars and depicted them in their art.

This interdisciplinary approach to exhibit design represents a new museology that

offers a more holistic view of objects within the museum and fosters a more visitor-centered museum experience. With a more visitor-centered approach to the museum experience, museum professionals have reevaluated how they view their visitors.

Doering (1999) discussed three such views of museum visitors: strangers, guests, and clients. When museums view visitors as strangers, the focus is on their collection and not on visitors (Doering, 1999). This attitude towards visitors was prevalent before the 1980s as part of the old museology (Smith, 1989).

Viewing visitors as guests is now the most common orientation (Doering, 1999). The museum wants to "do good" (cis) for visitors via educational outcomes or activities. However, by focusing on educational outcomes and activities, museums are making the assumption that the major draw for visitors is an educational experience. Previous studies have shown that in addition to educational experiences, museum visitors are seeking other types of experiences as well (Packer, 2008; Pekarik, Doering, & Karns, 1999).

The third view involves seeing visitors as clients. By seeing visitors as clients, the primary responsibility of the museum shifts to accountability to visitors. This view recognizes that visitors have needs and expectations they come to the museum to fulfill. Therefore, it becomes the museum's job to understand those needs and expectations and how to meet them. If visitors are seen as clients, the museum experience itself becomes the product.

Understanding the inherent value added by creating experiences is a concept upon which some companies have built their company culture (e.g., Disney, Starbucks). Still, it was not until Pine and Gilmore (1999) published their seminal work *The Experience*

Economy that the idea of staging experiences became well-known. Museum scholars took notice of Pine and Gilmore's work and either embraced their ideas (Roberts, 2001) or discounted their view of experience (Hennes, 2002) as being inappropriate for use in museum practice.

If a museum is viewed through the lens of the Experience Economy (ExEc), then the exhibits can be regarded as the "stage" and interpretation becomes the "script" with the final experience being determined by the perceptions, attitudes, emotions, and experiences of each visitor.

In particular, Pine and Gilmore lay out four such realms of experience. The realms are determined by the level of guest participation required (horizontal axis) and type of environmental relationship guests have with the production (vertical axis). The realms formed are referred to as entertainment, education, escapism, and esthetic (Figure 1). An entertainment experience occurs when visitors *passively absorb* an experience through their senses. In a museum setting, an entertaining experience could occur when parents watch a child play with an interactive exhibit. They are observing rather than being actively involved, but they are still receiving enjoyment from watching the child. An educational experience occurs when people *actively absorb* an experience by engaging the mind or body. For example, an interactive exhibit in a museum that requires skill and strategy to complete a required task would be an educational experience. An escapist experience involves *active* participation and complete *immersion* in the experience. Pine and Gilmore (1999) make the distinction that escapism is not only moving *from* but also going *to* some other place or activity. In a museum, the museum itself is an immersive environment with visitors losing track of time and getting away

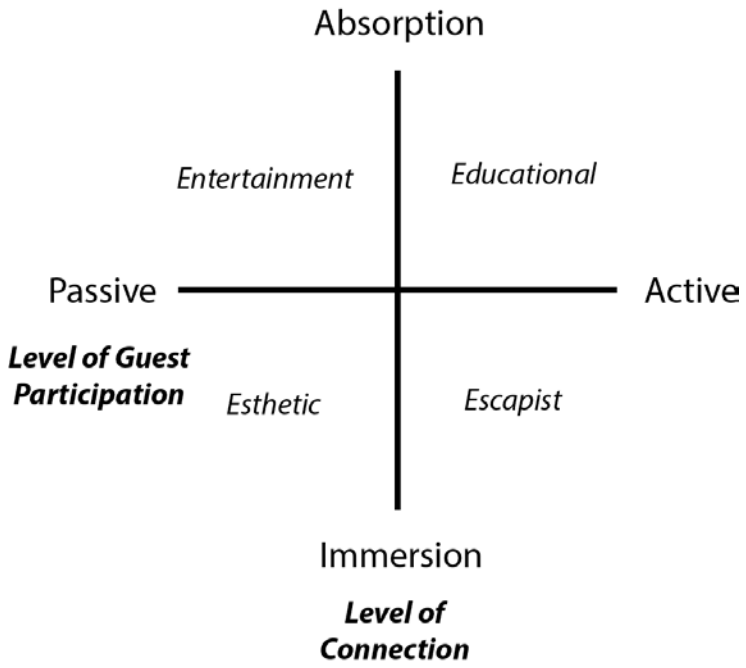


Figure 1: Axes that Form Experience Economy Realms

from their daily life. The final realm is the esthetic, which involves *passive immersion* in an event or environment. Studying a single object in a museum and losing track of the time spent is an example of an esthetic experience.

So while a case can be made that each of these types of experience can be found in a museum, the question becomes how to measure them. The only instrument thus far that has attempted to measure the ExEc realms comes from the tourism literature. Oh, Fiore, and Jeoung (2007) developed and tested a scale based on the ExEc realms in B&Bs in the lodging industry. In addition to the four ExEc realms, the scale also measured four outcome variables: memory, arousal, perceived overall quality, and customer satisfaction. Quality and satisfaction are two variables used extensively to evaluate consumptive experiences and thus were included in the instrument (Oh & Parks, 1997). Higher levels of perceived quality and/or satisfaction are believed to result in a more positive overall

experience.

Pine and Gilmore suggested that the value of an experience lingers in a customer's memory of the event. This view prompted Oh et al. to utilize memory as an outcome of a positive experience. As memory can be affected by sensory-based emotion (Dolcos & Cabeza, 2002; Pine & Gilmore, 1999; Oh et. al., 2007), psychological arousal was also added as an outcome variable. The results of the study indicated that the four ExEc realms provided both a conceptual fit and practical measurement framework that could be further used to study visitor experiences. The authors called for additional validations of the measurement scale in a variety of consumptive and staged experiences.

This call was taken up by Hosany and Witham (2010) who applied the instrument in a cruise ship setting. While the authors found significant relationships among the four ExEc dimensions and the outcome variables previously mentioned, the dimensions varied in terms of relative importance. The authors suggested that because of a poor performance in both studies, future studies consider using a different set of items to measure escapist experiences. As a secondary purpose of their study, Hosany and Witham (2010) sought to examine the relationship between the ExEc dimensions and a behavioral outcome from the marketing literature – intention to recommend. Since previous studies had linked satisfaction levels with behavioral intentions, including intention to recommend (Bigne, Sanchez, & Sanchez, 2001; Harrison & Shaw, 2004; Lee, Graefe, & Burns, 2004), Hosany and Witham (2010) believed that satisfaction would have a mediating effect on the relationship between the ExEc realms and intention to recommend. While the ExEc dimensions were found to have a direct effect on cruisers' intention to recommend, satisfaction was found to only partially mediate the

relationship. The authors believed a possible reason for this stemmed from satisfaction being measured as a single-item evaluation. For future studies, the authors suggested using multi-item measures to better evaluate satisfaction.

Intention to recommend has important implications not only when applied in a cruise ship setting. For a marketing department at a museum, positive word of mouth from friends and family can also serve as great advertisement. Upon examination of the relationship between satisfaction and behavioral intentions, two other intentions appear as possible outcomes of a museum experience. Specifically, at the NHMU, the museum staff would like visitors to feel a connection between the exhibits at the museum and actual locations in Utah. Through that connection, visitors would then either seek out more information on the sites or potentially feel encouraged to actually visit the site. For example, after spending time at the Great Salt Lake exhibit, a visitor could seek out more information on migratory bird populations of the lake or perhaps be motivated to visit Antelope Island State Park and experience the lake for themselves. From consumer and tourism research, these behaviors coincide with the intention to visit and engaging in information-seeking behavior (Harrison & Shaw, 2004; Kiel & Layton, 1981; Lee, Graefe, Burns, 2004; Peterson & Merino, 2003). Each of these behavioral intentions provides valuable information for NHMU staff to understand their impact on visitors and the community.

Statement of the Problem

The NHMU is interested in understanding the visitor experience and impact on the community. As the NHMU represents a new museology, existing visitor experience studies are not applicable for this context and location (Falk & Dierking, 2000; Packer,

2008; Pekarik et al., 1999). The concepts laid out in *The Experience Economy* appear to fit the rich experiences possible at the NHMU (Pine & Gilmore, 1999). An instrument testing these concepts exists and has been applied in other touristic settings (Hosany & Witham, 2010; Oh et al., 2007), but not in a museum setting. This instrument may allow for a more holistic understanding of the visitor experience. By seeking to understand behavioral intentions of visitors, this instrument may provide insight into the NHMU's impact on the surrounding community.

Therefore, the purpose of this study was (1) to empirically test the appropriateness of the ExEc scale in a museum setting; (2) establish whether or not a relationship exists between the ExEc realms and the cognitive variables of memory, arousal, perceived quality, and satisfaction in a museum setting; and (3) establish whether or not a relationship exists between the ExEc realms and three behavioral intentions and whether the cognitive variables mediate this relationship.

Research Questions

The following specific questions were addressed to understand the visitor experience at the NHMU:

- Research Question1: What dimensions of the ExEc framework are evident for visitors in at NHMU?
    - Hypothesis1: The dimensions of the ExEc framework are not evident in a museum setting.
- Research Question 2: What is the relationship between each of the ExEc dimensions and (a) memory, (b) arousal, (c) perceived quality, and (d)

satisfaction?

- Hypothesis 2A: There is no relationship between Entertainment and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction.
- Hypothesis 2B: There is no relationship between Education and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction.
- Hypothesis 2C: There is no relationship between Escapism and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction?
- Hypothesis 2D: There is no relationship between Esthetics and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction?

- Research Question 3: Is there a relationship between each of the ExEc dimensions and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
  - Hypothesis 3A: There is no relationship between Entertainment and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.
  - Hypothesis 3B: There is no relationship between Education and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.
  - Hypothesis 3C: There is no relationship between Escapism and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
  - Hypothesis 3D: There is no relationship between Esthetics and (a) intention to recommend, (b) intention to visit, and (c) information-seeking

behavior?

- Research Question 4: Do the cognitive variables mediate the relationship between each of the ExEc dimensions and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
    - Hypothesis 4A: The cognitive variables do not mediate the relationship between Entertainment and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.
    - Hypothesis 4B: The cognitive variables do not mediate the relationship between Education and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
    - Hypothesis 4C: The cognitive variables do not mediate the relationship between Escapism and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
    - Hypothesis 4D: The cognitive variables do not mediate the relationship between Esthetics and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
- Research Question 5: Is there a relationship between the ExEc dimensions and the intention to visit museum relevant sites?
    - Hypothesis 5: There is no relationship between the EE dimensions and the intention to visit museum relevant sites.
- Research Question 6: To what extent are visitors recognizing the NHMU's interpretive themes throughout the museum?

Delimitations

This study was delimited to NHMU visitors, 18 years and older, who visited the museum between the dates of June 4 through August 10, 2013 and who responded to an online survey.

Limitations

The results of this study may not be generalizable to other museums in the area or to museums in other locations. As a stratified sampling technique was employed, not every visitor to the museum had the opportunity to participate in the study.

Definitions

The major terms employed in this study are defined as follows:

- Museum – A permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment (Adapted from International Council on Museums as cited by National Association for Interpretation, 2007).
- Interpretation – A mission-based communication process that forges emotional and intellectual connections between the interests of the audience and meanings inherent in the resource (National Association for Interpretation, 2007).
- Experience – A series of memorable events that a company stages to engage the visitor in a personal way (Pine & Gilmore, 1999).

CHAPTER 2

REVIEW OF LITERATURE

Experience Economy Concepts

The conceptual framework for this study was grounded in the concepts set forth in *The Experience Economy* (Pine & Gilmore, 1999). The authors' major claim was that we are heading into an era with new economic offerings: experiences. To further explain this concept, the current layers to our economy were explored. For example, commodities, which were fungible items from the natural world such as coffee beans, corn, wheat, etc., are the foundational products of an agrarian economy. At the time of the Industrial Revolution, most Western societies became industrial economies where tangible products (or goods) were manufactured from commodity items, e.g., ground coffee packaged, and sold. After the end of World War II, the U.S. economy began to shift from an industrial economy to a service economy. Services are the dominant economic offering today. Service economy products are intangible activities undertaken for a client, so a waitress pouring a cup of coffee for a customer is a service. Some may argue that experiences are lumped in with services and should continue to be seen as such. Pine and Gilmore argue that experiences are a different economic offering entirely. Companies who create experiences for their customers use services as "the stage" and goods as "props" in order to *engage* an individual in a personal way. When you buy an

experience, you pay to spend time enjoying a series of memorable events the company has "staged." Therefore, the *value* of the experience is derived from the customer's memory of being engaged by the event. No two people can have the exact same experience. Each individual's experience comes from the interaction between the staged event and their prior state of mind.

As an experience can engage a person in a number of ways, Pine and Gilmore (1999) discussed two dimensions of engagement that ultimately create four realms of experiences (Figure 1). The first dimension looks at the level of guest participation: from passive to active participation (along the horizontal axis). *Passive participation* occurs when the performance is not directly affected or influenced by the customer. *Active participation* in an experience occurs when the customer does affect or influence the performance or event.

Voase (2002) further explored the active and passive visitor experience in the context of cultural and heritage attractions. When the word active is used to describe an activity or event, many people may immediately think of a physical activity. Similarly, a passive activity may bring to mind a contemplative activity. Voase acknowledged that considering active and passive in these terms is misleading. Instead, he suggested viewing active as "mental activity" and passive as "mental passivity" (Voase, 2002). This assertion aligned with Pine and Gilmore's definitions where active equals involvement and passive equals observation. The second dimension used to understand experience involved the level of connection or the "environmental relationship" (vertical axis) individuals feel towards an event or performance (Pine & Gilmore, 1999). In this context, absorption in an event or performance occurs when a person's attention is

focused on bringing the experience into the mind; immersion in an event or performance occurs when a person becomes physically (or virtually) a part of the actual experience (Pine & Gilmore, 1999). Here, they are treated as opposite ends of a spectrum. In other literature, particularly around the theory of *flow*, they are treated synonymously (Csikszentmihalyi, 1990). The point of differentiation in the context of the experience economy is perhaps found in the individual's state of being while in the performance environment. These two dimensions create four realms of experience: entertainment, educational, escapist, and esthetic (Figure 2).

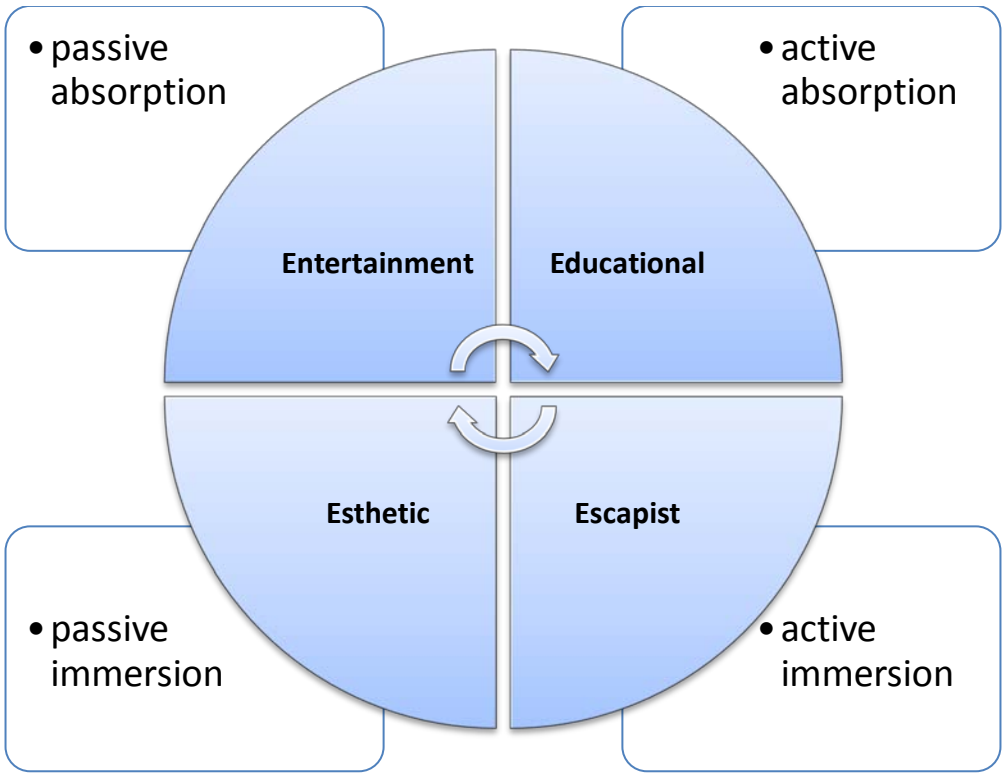


Figure 2: The Experience Realms (adapted from Pine and Gilmore, 1999)

The realms of experience are applicable to a variety of fields but they seem especially suited for application within the tourism industry in a variety of settings (Hosany & Witham, 2010; Oh, Fiore, & Jeoung, 2007; Quadro-Feletti & Fiore, 2012; Richards, 2001).

Entertainment: Being entertained

Entertainment can be viewed as something that holds the attention and interest of a person or otherwise gives pleasure and delight. There are innumerable ways to count an activity or event as entertainment but most involve some element of fun and enjoyment. In the context of the experience economy, entertainment occurs when someone uses their senses to *passively absorb* an event or performance (Pine & Gilmore, 1999). There is a connotation to the use of the term entertainment that brings to mind activities that are fun for fun's sake, such as a theme park experience or a Vegas-style show. However, an entertainment experience could also be watching an orchestra performance, reading a book, watching a child play, or laughing at jokes; it is the level of engagement and the emotions evoked from the experience that determine the experience's value as entertainment. In a museum setting, because of their purposes of collecting and preserving objects that authentically represent human existence, there is quite a debate about how museums can be entertaining without losing their credibility as places of preservation and education (Kotler, 1999; Roberts, 2001; Screven, 1993). Falk and Dierking (2000) suggested that in the minds of the museum visitor, learning and entertainment are a "both-and" phenomenon rather than an "either-or" phenomenon. If museums adopt this "both-and" view to entertaining and educational experiences, they

could focus on engaging visitors in "educationally enjoyable experiences from which they can take their own personal meaning" (Falk & Dierking, 2000).

Education: Learning something new

An educational experience could encompass learning in both formal and informal learning environments. When an individual has an educational experience, they are involved in *active absorption* of the event or performance (Pine & Gilmore, 1999). Pine and Gilmore (1999) believe that in order "to truly inform a person and increase his knowledge and/or skills, educational events must actively engage the mind (for intellectual education) and/or body (for physical training)" (p. 32). When it comes to experiences, education and entertainment are not mutually exclusive. Entertaining exhibits can help stimulate an interaction between the visitor and the content so that new information is acquired (Screven, 1993). Most visitors come into a museum with undefined learning goals leading to an informal learning experience. Learning involves multiple processes including perception and memory (Falk & Dierking, 1995; Hooper-Greenhill, 1999). Perception and memory are influenced by prior experience, which in turn influences learning. Museum learning is sometimes focused around objects in the museum. These objects "can act to ground abstract experiences, can enable recall of knowledge, and can arouse curiosity" (Hooper-Greenhill, 1999, p. 21).

Escapism: Diverging to a new self

In the escapist experience realm, the individual is an active participant in an immersive environment; in essence the participant directly affects the performance or event. Motion simulator attractions are the obvious example of an escapist experience.

However, Pine and Gilmore (1999) make the distinction that an escapist experience is not just a journey *from* but also a voyage *to* some specific place or activity, opening the door for a wider application to leisure pursuits. In leisure studies, escape is one of the dimensions that influence one's leisure behavior (Iso-Ahola, 1982, 1989; Kleiber, Walker & Mannell, 2011). The motivation to participate in leisure activities comes from an individual's desire to either *seek* needs satisfaction or *escape* their everyday environment (Iso-Ahola, 1982, 1989; Kleiber, Walker, & Mannell, 2011; Snepenger, King, Marshall, and Uysal, 2006). The seeking and escaping dimensions of leisure motivation are related to the need for optimal arousal (Dunn & Iso-Ahola, 1991, Snepenger et. al, 2006). In particular, individuals seek stimulating activities when at a lower level of arousal and escape over arousing situations by finding less stimulating activities, thereby achieving their own personal optimal level of arousal. In this new light, viewing entertainment experiences as those that visitors seek for higher stimulation and escapist experiences can then be viewed as opportunities for individuals to get away from their everyday (and perhaps over-stimulating) environment.

Esthetics: Indulged in environments

An esthetic experience occurs when an individual is a passive participant in a fully immersive event or environment. In modern times, the esthetic (or aesthetic) is predominantly associated with art and/or beauty (Diffey, 1986). However, the word esthetic comes from the Greek word for sensation (Cordua, 1986). So while an esthetic experience could involve taking in a portrait at an art gallery, it could also be a sensory reaction to the physical setting of another leisure activity. Because the esthetic

experience encompasses a sensory reaction to a location, the design and presentation of objects and the overall esthetics of the physical setting can influence learning behaviors in a museum (Hooper-Greenhill, 1999). Bitner (1992) proposed that ambient conditions; spatial layout and functionality; and signs, symbols, and artifacts were three important dimensions of the "servicescape," meaning the actual built environment. Bitner (1992) explained that these three types of environmental factors are perceived by customers and employees and then examined internally. It is these internal responses to the environment or servicescape that in turn influence both customer and employee behavior.

While some businesses may engage customers primarily through one realm of experience, many present experiences that encompass multiple realms. An experience that encompasses all four realms is said to hit the "sweet spot" in the middle of the framework. The sweet spot is a "mnemonic place" (described in Pine and Gilmore as a tool that aides in the creation of memories), a place that is distinct from the everyday norm.

Interpretation

Theming – Interpretation

For Pine and Gilmore, before an experience can be staged it must be successfully themed. Furthermore, theming an experience means scripting a story reliant upon guests' participation. Similarly, effective interpretation within a museum follows an overarching theme unique to the institution. If the museum is housed in a location built specifically for its purposes, even the architecture can speak to the overall theme of the institution (Knudson, Cable, & Beck, 2003). According to Pine and Gilmore (1999), the five key

principles in successfully theming an experience are (1) an engaging theme must alter a guest's sense of reality; (2) the richest venues possess themes that fully alter one's sense of reality by affecting the experience of space, time, and matter; (3) engaging themes integrate space, time and matter into a cohesive, realistic whole; (4) themes are strengthened by creating multiple places within a place; (5) and a theme should fit the character of the enterprise staging the experience (pp. 49-52). Each of these principles seems to point to the fact that the theme should enhance a sense of place for visitors; also an important goal for an interpretive theme. Interpretation serves as a museum's primary form of communication with their audience (Knudson, Cable, & Beck, 2003). The objects in a museum are viewed out of their natural context. Many museums rely on non-personal interpretation to give the objects in their collection meaning and relevance to modern day visitors. While the theme expresses the basic storyline, in a museum, the interpretive plan is the actual "script." To better understand the elements of an interpretive plan, it is important to understand interpretation as a field.

Interpretation – Background

The National Association of Interpretation (NAI) defines interpretation as "a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and meanings inherent in the resource" (NAI, 2007). Interpretation, as a profession, can trace its historical roots to the early growth of America's national park system when nature guides offered insights for visitors to the plants and animals they were seeing. However, the field did not have a true manifesto until the publication of Freeman Tilden's first book, *Interpreting Our Heritage* (1957,

1967, 1977). Tilden (1977) defined interpretation as "an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information" (p. 8). The six principles of interpretation as outlined by Tilden are still used as the foundation of interpretation across diverse disciplines (Alexander & Alexander, 2008; McKercher, Cros, & McKercher, 2002; Murtagh, 1988; Newsome, Moore, Dowling, 2002; Noss & Cooperrider, 1994; Shanks, 1993). Tilden's six principles are:

1. Any interpretation that does not somehow relate to what is being displayed or described to something within the personality or experience of the visitor will be sterile.
2. Information, as such, is not interpretation. Interpretation is revelation based upon information; but they are entirely different things. However, all interpretation includes information.
3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.
4. The chief aim of interpretation is not instruction, but provocation.
5. Interpretation should aim to present a whole rather than a part, and must address itself to the whole man rather than any phase.
6. Interpretation addressed to children should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

While the original six principles have not lost their relevance to the field in the last 50 years, modern interpretation faces new challenges as humankind and technology have progressed. In answer to these modern challenges, Beck and Cable (2002) revisited and expanded Tilden's principles and put forth nine additional principles in *Interpretation in the 21st Century* (Figure 3). These principles act as a roadmap to help practitioners fulfill the purposes of interpretation through a range of experiences.

Knudson, Cable and Beck (2003) outlined the purposes of interpretation as developing a sense of place, enriching experiences, meeting mandates, producing marketing and management benefits, and serving the client. Interpretation helps visitors develop a sense of place by identifying what makes that a location special in relation to other similar sites and in overall societal context. This should create an interest in seeking ways to learn more about the place. Many of the locations where interpretation occurs are places people spend their leisure time. The presence of interpretation in locations where visitors spend their leisure time adds value to the overall experience of that location. By seeking to enrich the visitor experience, interpreters may provide peak or optimal experiences (Maslow, 1962 as cited by Knudson, Cable, & Beck, 2003) or what Pine and Gilmore (1999) refer to as the "sweet spot," where a visitor has an experience that encompasses each of the four realms. Many museums have education as a part of their management mandate. Interpretation influences how a museum provides educational information to their visitors such that visitors are able to make connections between the material and their previous knowledge. Again, museum visitors see objects out of context; how an object is interpreted in modern terms restores its relevance to the visitor. Interpretation can often persuade visitors to behave in ways that prevent

1. To spark an interest, interpreters must relate the subject to the lives of the people in their audience.
2. The purpose of interpretation goes beyond providing information to reveal deeper meaning and truth.
3. The interpretive presentation – as a work of art – should be designed as a story that informs, entertains, and enlightens.
4. The purpose of the interpretive story is to inspire and to provoke people to broaden their horizons.
5. Interpretation should present a complete theme or thesis and address the whole person.
6. Interpretation for children, teenagers, and seniors – when these comprise uniform groups – should follow fundamentally different approaches.
7. Every place has a history. Interpreters can bring the past alive to make the present more enjoyable and the future more meaningful.
8. Technology can reveal the world in exciting new ways. However, incorporating this technology into the interpretive program must be done with foresight and thoughtful care.
9. Interpreters must concern themselves with the quantity and quality (selection and accuracy) of information presented. Focused, well-researched interpretation will be more powerful than a longer discourse.
10. Before applying the arts in interpretation, the interpreter must be familiar with basic communication techniques. Quality interpretation depends on the interpreter's knowledge and skills, which must be continually developed over time.
11. Interpretive writing should address what readers would like to know, with the authority of wisdom and its accompanying humility and care.
12. The overall interpretive program must be capable of attracting support – financial, volunteer, political, administrative – whatever support is needed for the program to flourish.
13. Interpretation should instill in people the ability, and the desire, to sense the beauty in their surroundings – to provide spiritual uplift and to encourage resource preservation.
14. Interpreters can promote optimal experiences through intentional and thoughtful program and facility design
15. Passion is the essential ingredient for powerful and effective interpretation – passion for the resource and for those people who come to be inspired by it.

Figure 3: Fifteen Guiding Principles for Interpreting Nature and Culture as outlined in *Interpretation for the 21st Century* (Beck & Cable, 2002, page 8)

resource destruction or deterioration, particularly in natural settings (Powell & Ham, 2008). Interpretation serves clients by helping visitors connect to some aspect of the site as well as the relationship between the site and the community or state surrounding the site.

In order to fulfill these purposes, institutions create interpretive plans. One of the key uses of these plans is determining exhibit design and the flow of information within the exhibit. The overarching themes of the institution are communicated and influence the script throughout. Knudson et al. (2003) suggested that the interpretive plan lays out the way to "produce rich, memorable experiences for interpretive clients" (p. 309) that speak to the themes of the institution. For example, the Land gallery at NHMU features a series of images illustrating how Lake Bonneville, at one point one of the largest lakes in North America (Utah Geological Survey, 2011), evolved through the ages, shaping the landscape of Utah, to become the Great Salt Lake of today. To imagine that most of the state of Utah was at one point under water is a memorable experience that showcases one of the NHMU's themes of evolution and change. The question then becomes how this experience is meaningful to visitors. Institutions examine this through evaluation. By evaluating interpretation, museums attempt to understand the connections visitors are making to the objects on display in order to keep exhibit content fresh. As these connections exist in the minds and emotions of the visitors, evaluating the visitor experience from the visitor's perspective is difficult to understand and measure.

Evaluating the Visitor Experience

Museums and the visitor experience

Many museum studies focus on educational outcomes when examining the visitor experience. The issue with focusing on outcome-based evaluation is that a museum is typically an informal learning environment where individuals create their own meaning about the ideas and objects they visit. Therefore, measuring specific learning outcomes has not been particularly helpful in understanding the visitor experience. Falk and Dierking (2000) proposed a contextual model of learning in museums that includes the personal, sociocultural, and the physical contexts. The authors viewed learning as the product of the interactions between these contexts. While this model provided a framework for understanding "free-choice" learning in a museum environment, it did not present the whole picture of the visitor experience in a museum setting. Kirchberg and Trondle (2012) noted the lack of empirical research undertaken in the field of museum studies to understand holistically the visitor experience. In their literature review, one of the empirical articles they highlight is Pekarik, Doering and Karns's (1999).

In the April 1999 edition of *Curator: The Museum Journal* two articles appeared from a team from the Smithsonian Institute. The first article analyzed the visitor experience through an analysis of the different attitudes museums had towards visitors and how those attitudes influence museum management (Doering, 1999). The author described three attitudes that museums have concerning their visitors. Some museums viewed their visitors as *strangers*. In this case, the focus for the museum is on their collection and not on the public. Doering claimed that the most commonly accepted attitude in today's museums is to view visitors as *guests*. The museum wants to "do

good" (cis) for visitors which have typically been expressed as "educational" outcomes or activities (Doering, 1999). The third attitude discovered in Doering's research views museum visitors as *clients*. In this sense, the primary responsibility of the museum is to be accountable to visitors. This attitude takes into account that visitors have needs and expectations they come to the museum to fulfill. Therefore, according to this perspective, it would be the museum's job to understand those needs and expectations and how to meet them. Doering's work revealed the reasoning for a new approach to the visitor experience.

Building upon Doering's work, Pekarik, Doering, and Karns (1999) explored these ideas by conducting interviews with visitors and developed a list of experiences they could utilize in survey work. Pekarik et. al. (1999) conducted eight studies at nine Smithsonian museums. Their findings revealed 14 satisfying experiences (Figure 4) which they categorized into four groups: object, cognitive, introspective, and social.

Building upon Pekarik et al., Packer (2008) used their experiences and typology but added in the idea of restoration and the museum as a restorative environment. As a synthesis of several frameworks, Packer's (2008) framework looked at how the environmental factors of the setting influenced the experiences of visitors in a museum setting which produced benefits for visitors. The environmental factors or servicscape dimensions that ultimately influenced the experiences and behavior of visitors were ambient conditions, spatial layout and functionality, and signs and symbols (Bitner, 1992). Packer (2008) looked at two frameworks for understanding experiences: the Pekarik et. al (1999) typology of satisfying experiences (object, cognitive, introspective, and social) and Kaplan and Kaplan's (1989) four conditions of attention restoration

Object Experiences
Seeing 'the real thing'
Seeing rare/uncommon/valuable things
Being moved by beauty
Thinking what it would be like to own such things
Continuing my professional development

Cognitive Experiences
Gaining information or knowledge
Enriching my understanding

Introspective Experiences
Imagining other times or places
Reflecting on the meaning of what I was looking at
Recalling my travels/childhood experiences/other memories
Feeling a spiritual connection
Feeling a sense of belonging or connectedness

Social Experiences
Spending time with friends/family/other people
Seeing my children learning new things

Figure 4: Satisfying Museum Experiences Data Source: Pekarik, Doering, & Karns, 1999

theory (fascination, being away, extent, and compatibility). These experience frameworks led to different benefits for the visitor. The Pekarik et. al. (1999) typology of satisfying experiences led to psychological and subjective well-being benefits such as autonomy, personal growth or happiness. Kaplan and Kaplan's (1989) four restorative elements led to restoration benefits of relaxation, peace and tranquility, or thoughtfulness.

Fino (2008) also built upon the museum experiences laid out in Pekarik et. al by developing a scale and applying it in a living history museum. Fino (2008) found that the satisfying experiences may not be applicable across all types of museums. Recently,

Pekarik and Schreiber (2012) published an article that gives an overall review of the studies that have been conducted by the Smithsonian in the years since the 1999 article was published. While the article publishes a complete list of experiences that the Smithsonian team has used in their studies (Table 1), the focus is on six core experiences that have stood the test of time. Additionally, the authors set forth schema theory to help explain experiences in museums. Interestingly, each of the six core experiences seems to fit with experience economy concepts. Educational experiences could be measured by items such as "gaining information/knowledge" and "enriching my understanding." Even though esthetic experiences are not defined solely as dealing with art or beauty, the item "being moved by beauty" describes an esthetic experience. "Imagining other times or places" could easily be used to describe an escapist experience while "seeing a rare/valuable/uncommon thing" could describe an entertainment experience. One of the core items involved "reflecting on the meaning of what I see" and "recalling memories" was an item used in several studies; these items are relevant because Pine and Gilmore (1999) report that experiences should be memorable.

Tourism and the visitor experience

Tourism studies examining the visitor experience have typically drawn from two disciplines: social psychology and consumer research. Much has been written about the social psychological aspects of leisure. It is from this body of literature that the social psychological view of the visitor experience in tourism emerges.

Mannell and Iso-Ahola (1987) laid out three approaches to studying leisure and tourist experiential phenomena: definitional, post hoc satisfaction, and

Table 1: Experience Items by Category Adapted from Pekarik and Schreiber, 2012
*denotes core experiences does not include all experience items.

EXPERIENCE CATEGORY	EXPERIENCE ITEM	USES IN 18 STUDIES
INFORMATION/ UNDERSTANDING	Gaining information/knowledge*	12
	Gaining information	4
	Enriching my understanding*	14
RARE/REAL/IN PERSON	Seeing rare/valuable/uncommon things*	15
	Seeing rare art	2
CONNECTION	Feeling a connection to Indian history and culture	3
		7
	Getting a sense of the everyday lives of others	2
	Connecting with my heritage	3
	Connecting with the emotional experiences of others	
BEAUTY	Being moved by beauty*	16
MEANING	Reflecting on the meaning of what I see*	17
FEELINGS	Feeling awe and wonder	2
	Feeling a sense of awe/wonder	2
	Feeling a spiritual connection	2
	Feeling relaxed/tranquil/calm	2
IMAGINING	Imagining other times/places*	9
MEMORIES	Recalling memories	5
CHILDREN/FAMILY	Spending time with friends/family	5
NATURAL WORLD	Appreciating the natural world and our place in it	4
DISCUSSING	Discussing what I see with people I'm with	2
	Talking about exhibits with museum staff	2
DIFFERENT CULTURE	Getting a feel for different art/cultures	1
	Being exposed to different cultures	1
	Experiencing a culture different from my own	1
RELEVANCE	Relating what I will see/saw to my everyday life	2
PROFESSIONAL DEVELOPMENT	Continuing my professional development	1

immediate conscious experience. The definitional approach centers around research that attempts to identify the factors that lead people to label their activities or experiences as leisure or nonleisure, building upon the work of Neulinger's (1974) leisure paradigm. The post hoc satisfaction approach assumes that individuals know and understand their leisure needs or motivations; the kinds of experiences that will meet or satisfy these

needs; and that they are able to accurately assess when these needs are met (Mannell & Iso-Ahola, 1987). This approach also utilizes Iso-Ahola's leisure motivation model with escaping and seeking dimensions to understand leisure behavior. The final approach looks at leisure as an immediate conscious experience. This approach is concerned with the factors within the individual and the immediate environment that influence the actual experience at any given moment.

The focus for the consumer research piece is on Otto and Ritchie (1996) and their conceptualization of the "service experience." They lay out how research typically focused on quality and productivity while not exploring the "psychological environment." The elements of the psychological environment is what they say makes up the "service environment." They created a scale to measure this concept. Initially they believed there would be six factors (Table 2). The study found four factors (hedonics, peace of mind, involvement and recognition) with hedonics accounting for more variance than the other three combined. For this study, the authors employed the new scale in three different business lines within the tourism industry (airlines, hotels, tours and attractions). The results varied across the business lines. From the initial six proposed factors, we can see an overlap with experience economy concepts. The hedonic dimension encompasses entertainment experiences, which are exciting and enjoyable, while again bringing in memorability of the experience. The novelty dimension looks at escape. The stimulation dimension covers educational experiences while the comfort dimension could be seen as including esthetic experiences because environmental factors would influence whether or not visitors felt physically comfortable or relaxed.

Table 2: Construct domain of the Service Experience (Otto & Ritchie, 1995 as cited in Otto & Ritchie, 1996)

Dimension	Examples
Hedonic	Excitement Enjoyment Memorability
Interactive	Meeting People Being Part of the Process Having Choice
Novelty	Escape Doing Something New
Comfort	Physical Comfort Relaxation
Safety	Personal Safety Security of Belongings
Stimulation	Educational and Informative Challenging

Prentice, Witt and Hamer (1998) also conducted research on the visitor experience in touristic settings, specifically in an industrial heritage park. Here, the authors were focused on the concept that the core product of tourism is the beneficial experiences gained. They conducted interviews to initially determine the benefits produced from a visit to the park. This article outlines five models of experience from the literature: hierarchical, flow, planned behavior, typological, and insider-outsider. While they were looking at the benefit chain of causality (hierarchical model) as their main way of analyzing their data, they ultimately tried to draw connections between their data and each of the models. In their main analysis, they found that some of the benefits gained by their visitors were they "gained an insight," felt "keen to learn more," and thought it felt "good to spend a day with family/friends" in that setting. They also found that socio-demographic information did not "play a prominent role in understanding

experience." There were a couple of exceptions which were in whether or not the park met the expectations of the visitors and whether or not they would recommend the park. When examining their data through the other models, the authors found that the typological model fit with some of their findings. Cohen's (1979) typology delimited five modes of experience: recreational, diversionary, experiential, experimental, and existential. These experiences are seen as representing various styles of consumption. These styles include restoration of personal well-being, escape from boredom, search for aesthetic meaning, search for alternative lifestyles, and the embracing of alien cultures. Prentice, Witt and Hamer (1998) claimed that their results supported the recreational or experiential modes and perhaps also the existential mode from Cohen's (1979) typology.

Measuring the Experience Economy

The framework laid out in Pine and Gilmore (1999) appears to have a relevance to both museum and tourism scholars. However, the framework needed to be tested in a real-world setting before the discussion of ExEc's applicability could continue. Oh, Fiore, and Jeoung (2007) set out to do just that. This section discusses the scale developed by Oh et al. as well as the use of said scale in another business line within the tourism industry. Hosany and Witham (2010) analyzed the usefulness of the scale in the cruise industry and also looked the constructs' ability to predict behavior, specifically intention to recommend. This section will take a closer look at each study as well as the outcome variables evaluated in each.

Oh, Fiore, and Jeoung (2007) set out with two purposes for their study: (1) to create scales that would measure experience economy concepts while introducing

relevant theoretical variables and (2) to empirically test the experience economy concepts in the B&B lodging sector. The authors felt that the four realms of the ExEc were well suited to the tourism context as these dimensions encompass a variety of characteristics of tourism experiences. As Pine and Gilmore put forth that for individuals the value of the experience "lingers in the memory" of the event, Oh et al. introduced *memory* as one of their initial outcome variables. The authors also chose to look at psychological *arousal* because it is an indicator of sensorial and/or emotive experiences that may lead to stronger memory formation (Dolcos & Cabeza, 2002; Oh et al., 2007; Pine & Gilmore, 1999). They also chose to examine *perceived overall quality* and *customer satisfaction* as both variables have appeared in research about consumptive experiences. The Oh et al. findings support the use of the ExEc realms as both a conceptual fit and useful measurement framework for studying tourist experiences. In the case of B&B experiences, the study revealed the esthetic dimension as the highest predictor of outcomes. The escapist and entertainment realms were not statistically significant determinants of the experiential outcomes contrary to what the authors had expected to find. The authors call for further validations across different consumptive experiences and suggested that additional research could focus on the relationship between ExEc concepts and other consumptive evaluations.

Hosany and Witham (2010) took this measurement of the ExEc realms and applied it in a cruise ship setting. The cruise experience offers "a total escape, safe transportation to exotic destinations, Vegas-style entertainment, luxurious pampering service, quality food and beverage, innovative onboard features, and awe-inspiring esthetics" (Hosany & Witham, 2010, p. 352), which made it an ideal setting to test the fit

of the Oh et al. instrument. In addition to seeing whether the experience dimensions described the cruisers' experience, they authors also sought to investigate the relationship between cruisers' experiences, satisfaction, and intention to recommend. After a small pilot test to make sure the items fit the study setting, the survey was employed on-board a 2-week cruise through Southeast Asia. The four experiences dimensions were found to be statistically related to memory, arousal, and perceived overall quality. Since the authors' believed that tourists' satisfaction levels are related to behavioral intentions, particularly the likelihood of recommendation, they chose to investigate role of overall satisfaction as a mediator in the relationship between cruisers' experiences and intention to recommend. It was concluded that satisfaction acted as a partial mediator between experiences and intention to recommend. Importantly, the authors note that the four dimensions differed in their relative importance in explaining the outcome variables. Indeed, escapism was only a significant predictor of overall perceived quality and was not related to satisfaction or intention to recommend. This made the authors questions whether the items on the scale accurately measured escapist experiences. It was also put forth that a plausible explanation for why satisfaction only partially mediated the relationship between the experience dimensions and intention to recommend stems from satisfaction being operationalized as a single item looking at overall evaluation. The authors suggest capturing satisfaction using multiple items in the future.

Cognition and ExEc

Both studies set out to measure the ExEc dimensions using memory, arousal, perceived quality, and satisfaction as their outcome variables. *Memory* is the process

through which our brains encode, store and retrieve information we encounter. Pine and Gilmore (1999) emphasized that staged experiences are memorable. Oh et. al. (2007) included memory as an outcome variable because a positive memory of an event or performance will impact the individual's overall attitude towards the setting. In museums, memory and previous experiences help to shape the meaning of objects or experiences in the present for visitors (Silverman, 1995). Indeed, memory studies have been undertaken in museum settings to try to understand the lasting impact of an exhibit or experience on visitors (McManus, 1993). *Arousal* was added as a variable because it is an indicator of sensorial experiences and rich sensory experience builds stronger memories. When looking at servicescapes, the emotion-eliciting qualities of an environment are captured by pleasure-displeasure and the degree of arousal dimensions (Bitner, 1992). The emotional response measured on these dimensions can predict behaviors with respect to the environment (Bitner, 1992). The need for optimal arousal is relevant to a museum environment. Level of desired arousal is believed to be related to personality particularly extraversion versus introversion. As extroverts are naturally under stimulated, they seek environments that allow them to achieve higher levels of arousal or excitement. Introverts are naturally over stimulated and therefore seek environments that allow them to reduce their level of stimulation or arousal until they reach their optimal level. A museum environment is conducive to providing the optimal level of arousal for both extraverts and introverts. An extravert might be more likely to visit a museum with a larger group of people (receiving higher stimulation due to the social influence) and would perhaps spend more time at the interactive exhibits that a group could participate in together, thereby increasing their level of arousal. Introverts

would perhaps be more likely to visit a museum alone or with a fewer number of people. While in an exhibit, they would perhaps separate from their group in order to take in the objects on display in their own time and attention. Introverts would seek to lower their level of arousal through quiet contemplation. While *perceived quality* and *satisfaction* developed from expectancy disconfirmation theory, they are distinct constructs (Crompton, Mackay, & Fesenmaier, 1991; Tomas, Scott, & Crompton, 2002). Perceived service quality is attributed to the tangible and intangible characteristics of a service or experience. Put another way, perceived quality is the output of a service provider where the evaluation is based on the customer's perception of the provider (Baker & Crompton, 2000). Satisfaction is a psychological outcome that comes from direct contact with the service. It is believed that a higher perceived quality experience should result in a higher level of satisfaction (Baker & Crompton, 2000; Lee, Graefe, & Burns, 2004).

Behavioral Intentions and ExEc

Hosany and Witham (2010) looked at cruisers' intention to recommend as an outcome of a satisfying experience. Based upon content extracted from the Natural History Museum of Utah's overarching interpretive plan, this study pulled two additional behavioral intentions from marketing research that should be applicable in this setting. Those intentions are the intention of visitors to visit sites and the intention to engage in information-seeking behavior. Many studies have looked at the relationship between satisfaction and behavioral intentions (Baker & Crompton, 2000; Harrison & Shaw, 2004; Hosany & Gilbert, 2009; Hosany & Prayag, in press; Lee, Graefe, & Burns, 2004; Simpson, 2000). A customer's intention or willingness to recommend a product or

service is an important form of marketing for a location. Many customers rely on recommendations from friends and family in order to make decisions on activities or events to participate in. Repeat visitation is another important intention for marketing departments in organizations. While studies have focused on the intention to revisit a location (Harrison & Shaw, 2004; Lee, Graefe, & Burns, 2004), none have looked into the intention to visit other relevant sites. The intention to engage in information-seeking behavior has been studied in relation to consumer research particularly in retail and online environments (Kiel & Layton, 1981; Peterson & Merino, 2003). While the behavior in this setting will take place online, the purpose of engaging in information-seeking behavior is not in order to make purchasing decisions, it is instead to learn more about objects or ideas customers were exposed to within the museum setting.

The experience economy conceptual framework appears to be applicable to a museum setting. On-site interpretation sets the "stage" for the experience while the interpretive plan is the "script" used to foster a connection between the museum and the visitor. While interpretation and the experience economy seek to provide rich, memorable experiences, the value of these experiences exists in the minds and emotions of the visitors. Museum and tourism studies have sought to understand and evaluate the visitor experience, yet have not seemed to be able to capture the entire experience. The creation of an instrument based on the experience economy realms offers a comprehensive way to understand the visitor experience and a museum's potential impact on its community through visitors' behavioral intentions. A conceptual model (Figure 5) depicts how each realm of experience could ultimately impact behavioral intentions.

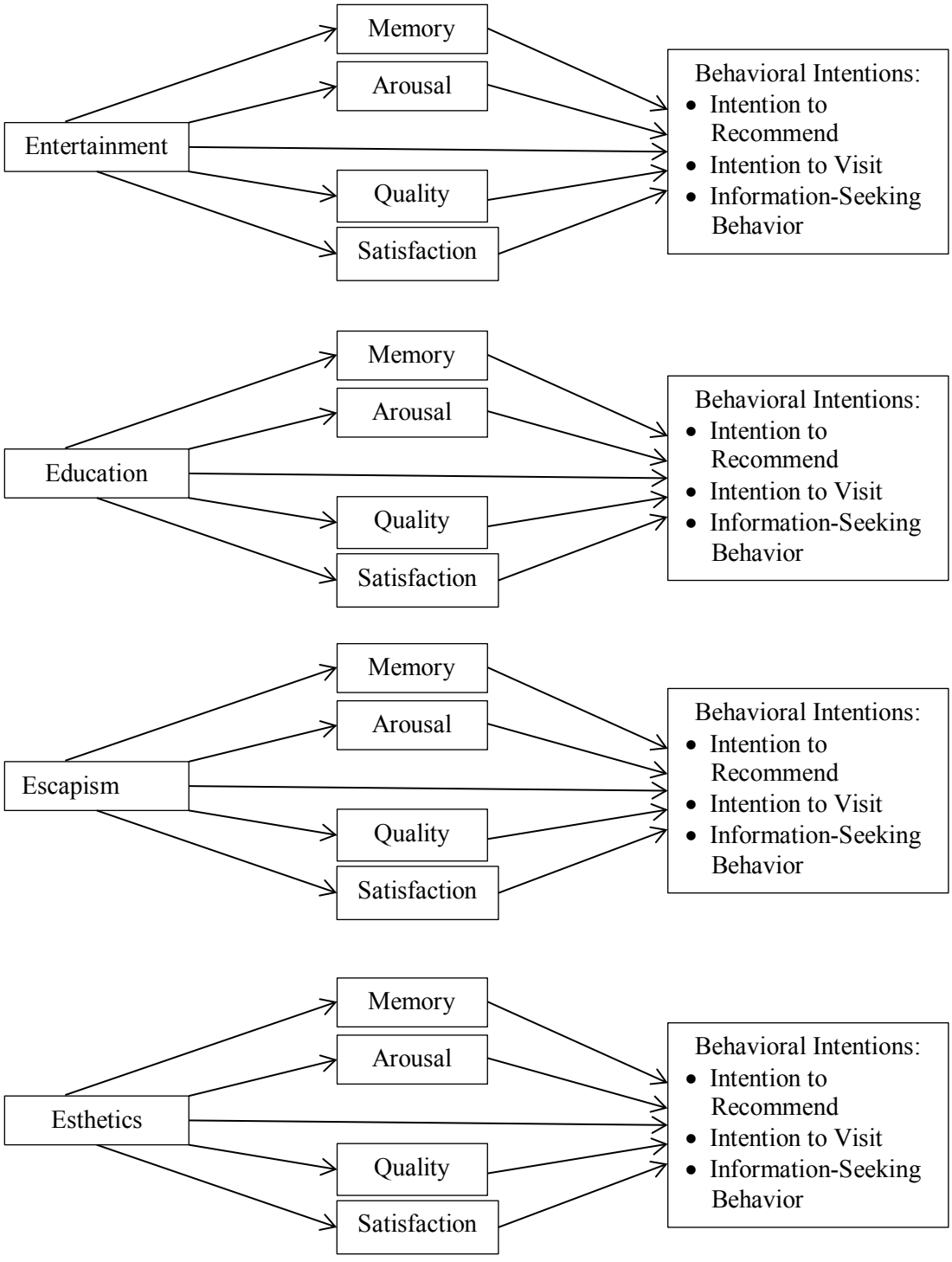


Figure 5: Conceptual Model

CHAPTER 3

METHODS

The purposes of this study were to (1) empirically test the appropriateness of the ExEc scale in a museum setting; (2) establish whether or not a relationship exists between the ExEc realms and the cognitive variables of memory, arousal, perceived quality, and satisfaction in a museum setting; and (3) establish whether or not a relationship exists between the ExEc realms and the behavioral intentions noted above and whether the cognitive variables mediate this relationship. This chapter addresses the methods and procedures utilized to fulfill these purposes.

Study Area

The NHMU's home, the Rio Tinto Center, sits on 17-acres along the historic shoreline of Lake Bonneville. The museum contains ten themed galleries (see Appendix B) and is home to 1.2 million objects. The primary target audience for the museum is families with children and adults (both locals and tourists). The secondary audience is school groups, as well as University of Utah students and faculty. For the first year, visitation totaled 380,000 visitors; this was 46% higher than their year-1 goal for visitation. For membership goals, they had the goal of reaching 3,500 households, they reached 5,000 households. A stay-time study was conducted in April 2012 with a total of

418 participants (Becker, 2012). The study found the average visit to the museum lasted 111 minutes (1:51). They also found that visitors who came on Saturdays were more likely to stay longer than visitors who came during the week or during late hours held every Wednesday. Interestingly, the majority of sampled visitors began their time in the Level 2 Galleries (Appendix B). This makes sense as half of the visitors in the study came with children and the NHMU's collection of dinosaur objects, a huge draw for children, can be found in the Past Worlds exhibit which is most easily accessed from Level 2. However, the visitor experience should ideally begin on Level 5 with visitors working their way down through the galleries.

Data Collection

A stratified systematic sampling strategy was employed for this study. On-site sampling was conducted on Level 2, in an area known as the Canyon, beginning June 4 through August 10, 2013. This area was chosen because it is the checkpoint where ticketed visitors are allowed into the galleries; the café and gift shop are open to the public. The stay-time study showed that visitors do not always start at Level 5 and work their way back down, therefore an exit survey stationed at the end of the galleries is not necessarily the best locale. Every Saturday and Wednesday during the collection period was scheduled for sampling. Saturday had the highest attendance numbers (Becker, 2012) and the NHMU was open late on Wednesdays. Other weekdays were sampled on a rotational basis. Data collectors were chosen from NHMU volunteers who responded to a posting submitted to the NHMU volunteer coordinator (Appendix C). During on-site sampling, data collectors were stationed near the ticket checkpoint to ask for participation

at the start of the visit. As many visitors come in groups of four or more, initially every 10th person was asked to participate in the study to ensure that only 1 member of a group was approached. After the first 2 weeks of data collection, data collectors began asking every 5th person to participate because attendance numbers during the collection period, especially on weekdays, were not as high as expected. As this was an online survey, participants were provided with an information page containing a link to the survey upon agreeing to participate (Appendix D). The goal was to have 400 participants. Upon completion of the survey, participants could download a coupon for a discounted purchase at either the museum store or café as a token of appreciation.

Instrumentation

The survey instrument was primarily quantitative with the addition of five open-ended questions. One of the study goals was to replicate the results of previous studies using this instrument; therefore the survey utilized many of the same items included in previous studies (Oh et al., 2007, Hosany & Witham, 2010). The final survey instrument included revisions based on recommendations from previous studies (Hosany & Witham, 2010; Oh et al., 2007).

Online Instrument

The first two questions of the survey were open-ended asking participants about their primary motivation for visiting the museum and what they enjoyed most about their visit (See Appendix D). The next items measured experience economy concepts and relevant outcome variables. The ExEc scale developed by Oh et. al (2007) and tested in a

different setting by Hosany and Witham (2010), measured each experience realm with three or four items on a 7-point (strongly disagree – strongly agree) scale. Table 3 represents the items previously used to measure experience economy concepts. The next series of questions captured the sociodemographic profile of the visitor.

Table 3: Experience Economy Survey Items

Education	The experience has made me more knowledgeable
	I learned a lot
	It stimulated my curiosity to learn new things
	It was a real learning experience
	The experience was highly educational to me
	The experience really enhanced my skills
Esthetics	I felt a real sense of harmony
	Just being here was very pleasant
	The setting was pretty bland (reverse coded)
	The setting was very attractive
	The setting really showed attention to design detail
	The setting provided pleasure to my senses
Escapism	I felt I played a different character here
	I felt like I was living in a different time or place
	The experience let me imagine being someone else
	I completely escaped from my daily routine
	I totally forgot about my daily routine
	I felt I was in a different world
	(I felt like I was in a different time or place)
Entertainment	Activities of others were amusing to watch
	Watching others perform was captivating
	I really enjoyed watching what others were doing
	Activities of others were fun to watch
	Watching activities of others was very entertaining
	What others did was boring to watch (reverse coded)
Memory	I will have wonderful memories about this (museum)
	I will remember many positive things about this (museum)
	I won't forget my experience at this (museum)
Arousal	How interesting was your visit to the museum?
	How stimulating was your visit to the museum?
	How exciting was your visit to the museum?
	How enjoyable was your visit to the museum?
Overall perceived quality	Poor…Excellent
	Inferior…Superior
Overall satisfaction	Very dissatisfied…Very satisfied
	Terrible…Delighted
Intention to recommend	Extremely unlikely…extremely likely

Adapted from Oh et al. (2007) and Hosany and Witham (2010)

Items included: age, gender, education, visitation experience (member, student, first visit, repeat, etc.), and number of people in party. The final series of open-ended questions asked about the participant's recognition of the overarching interpretive themes of the museum, and solicited provide any additional feedback not covered through the survey questions.

Instrument revisions and additions

Hosany and Witham (2010) suggested using different items to measure the escapist realm and suggested that satisfaction be measured by more than an overall evaluative item. The items suggested for the escapist realm came from Mathwick, Malhotra, and Rigdon's (2001) experiential value scale (EVS), which measured escapism in an online shopping situation. The items included can be seen in Table 4.

The satisfaction items used for this study were adapted from del Bosque and San Martin (2008). These items were "Overall, I have really enjoyed my visit to NHMU"; "My choice to visit the museum was a wise one"; and "This visit was exactly what I needed."

Behavioral intention items were measured using a 7-point scale. Intention to recommend was measured using "I will recommend visiting the NHMU to others."

Table 4: Escapism Items from Experiential Value Scale

EVS Item	ExEc Item
Shopping from XYZ's Internet site "gets me away from it all"	Visiting the NHMU "gets me away from it all."
Shopping from XYZ makes me feel like I am in another world.	Visiting the NHMU makes me feel like I am in another world.
I get so involved when I shop from XYZ that I forget everything else.	I get so involved during my visit that I forget everything else.

Intention to visit was measured by the item "I will visit sites I have seen depicted at the NHMU." Intention to engage in information-seeking behavior was measured by the item "I am interested in learning more about the sites I have seen depicted at the NHMU." There was also an open-ended question asking participants to identify specific sites from the museum they would be interested in learning more about and/or actually visiting.

Treatment of Data

Quantitative data were entered online through Survey Monkey. Data were transferred to The Statistical Package for the Social Sciences (SPSS), Version 22 (IBM, 2013). The following is a summary of the statistical procedures and analyses used to answer six research questions posed in this study.

Research Questions

- Research Question 1: What dimensions of the ExEc framework are evident for visitors in a museum setting?
    - Hypothesis 1: The dimensions of the ExEc framework are not evident in a museum setting.
    - Statistical Procedure: Confirmatory factor analysis, psychometric tests
- Research Question 2: What is the relationship between each of the ExEc realms and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction?
    - Hypothesis 2A: There is no relationship between Entertainment and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction.

- Hypothesis 2B: There is no relationship between Education and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction.
- Hypothesis 2C: There is no relationship between Escapism and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction?
- Hypothesis 2D: There is no relationship between Esthetics and (a) memory, (b) arousal, (c) perceived quality, and (d) satisfaction?
- Statistical Procedure: Partial Correlation

The dependent variables were memory, arousal, perceived quality, satisfaction. The independent variables were entertainment, education, escapism, esthetics.

- Research Question 3: Is there a relationship between each of the ExEc realms and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
    - Hypothesis 3A: There is no relationship between Entertainment and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.
    - Hypothesis 3B: There is no relationship between Education and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.
    - Hypothesis 3C: There is no relationship between Escapism and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?

- Hypothesis 3D: There is no relationship between Esthetics and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
- Statistical Procedure: Partial Correlation

The dependent variables were intention to recommend, intention to visit, information-seeking behavior. The independent variables were entertainment, education, escapism, esthetics

- Research Question 4: Do the cognitive variables mediate the relationship between each of the ExEc realms and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
  - Hypothesis 4A: The cognitive variables do not mediate the relationship between Entertainment and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.
  - Hypothesis 4B: The cognitive variables do not mediate the relationship between Education and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
  - Hypothesis 4C: The cognitive variables do not mediate the relationship between Escapism and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
  - Hypothesis 4D: The cognitive variables do not mediate the relationship between Esthetics and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior?
  - Statistical Procedure: Parallel mediation analysis using PROCESS

The dependent variables were intention to recommend, intention to visit, information-seeking behavior. The independent variables were entertainment, education, escapism, esthetics. The mediating variables were memory, arousal, perceived quality, satisfaction.

- Research Question 5: Is there a relationship between the ExEc dimensions and the intention to visit museum relevant sites?
    - Hypothesis 5: There is no relationship between the ExEc dimensions and the intention to visit museum relevant sites.
    - Qualitative and Statistical Procedure: Content analysis, independent samples *t*-test

The dependent variables were education, entertainment, escapism, esthetics. The independent variables were museum relevant sites.

- Research Question 6: To what extent are visitors recognizing the NHMU's interpretive themes throughout the museum?
    - Procedure: Content analysis

Analysis

The data were downloaded from the online survey system directly into SPSS where the data were analyzed using SPSS, LISREL, and PROCESS, a conditional process modeling program that tests for both direct and indirect effects by using a regression-based approach (Hayes, 2012). After an initial analysis involving visual inspection, frequency tables, and descriptive statistics, five cases were deleted due to the lack of response beyond the initial open-ended questions. Any other missing data were missing at random.

LISREL 9.1 (Jöreskog & Sörbom, 2013) was used to conduct the confirmatory factor analysis on the ExEc items. A separate dataset with just the items needed for analysis was created and any missing data in those dataset was replaced with the mean for that item.

PROCESS was particularly instrumental in examining Question 4. In Hosany and Witham (2010) the mediation effect of satisfaction on the relationship between ExEc concepts and behavioral intentions was analyzed using Baron and Kenny's (1986) causal steps approach. However, this approach does not actually test for mediation (Hayes, 2009). Their approach claims that mediation only occurs when (1) there is a significant direct relationship (c path); (2) there is a significant relationship between the independent variable and the proposed mediator (a path); (3) there is a significant relationship between the proposed mediator and the outcome variable (b path); and (4) that the significant direct relationship was reduced or disappeared with the mediator in the model (c′ path). If each of these scenarios were met, you could infer that mediation had occurred (Hayes, 2009; Jensen, King, Carcioppolo, & Davis, 2012). Two advantages to using PROCESS to examine mediation effects are (1) that indirect effects are subjected to bootstrapping to examine the stability of the effect and (2) multiple mediators can be examined at once.

CHAPTER 4

RESULTS

This chapter presents the results of the study. The first section provides information about the respondents to the survey while the second section examines the research questions answered by the study.

Participant Profile

A stratified systematic sampling strategy was employed for this study. Sampling was conducted at the admission checkpoint for entry into the NHMU from June 4 until August 10, 2013. Out of the 403 NHMU visitors asked to participate, 212 responded to the online survey before it closed on August 24. After cases with missing data were removed, the final sample size (n = 207) was determined.

Sociodemographic Information

The survey had 199 responses for gender; of those responses 129 identified as female (64.8%) and 70 identified as male (35.2%). The respondents ranged in age from 19 to 89 with a mean age of 44 (SD = 14.20). When asked to identify their highest level of education, 79.6% of those who responded had completed some form of higher education (Table 5). The vast majority of respondents were first-time visitors to the

Table 5: NHMU Experience Survey Education Distribution

Level of Education	Responses	Percentage
Graduated from high school	6	3.0
Some college	35	17.3
Graduated from college	75	37.1
Some graduate school	13	6.4
Completed graduate school	73	36.1
n = 202		

NHMU. However, as respondents were asked to check all the categories that applied, there was an overlap of responses. In total, 28 people were NHMU members, 12 were University of Utah faculty, 14 were University of Utah students, 126 were first-time visitors to NHMU, and 58 were repeat visitors. On average, respondents visited the museum in groups of 3 or more with 31% of respondents visiting with 5+ in their party.

Experience Economy Framework

The first research question asked: *What dimensions of the ExEc framework are evident for visitors in a museum setting?* To answer this question, confirmatory factor analysis (CFA) was used for the 12 items making up the experience realms. Upon checking for univariate abnormality, eleven items were significantly skewed and six items were significantly kurtotic (Table 6). Overall, the items presented significant multivariate abnormality, *skewness* = 45.05, *Z*-score = 25.21, $p < .001$, and *kurtosis* = 237.43, *Z*-score = 12.60, $p < .001$.

To establish a baseline model, the 12 items were tested with one latent variable (ExEc). The asymptotic covariance matrix was used for the CFA since the data were not normally distributed. Six goodness-of-fit indicators are reported: Satorra-Bentler (S-B) χ^2, which adjusts for nonnormal data, χ^2/df ratio, comparative fit index (CFI), root mean

Table 6. Univariate Summary Statistics for ExEc Items

		M(SD)	Skewness	Kurtosis
EDU1	The experience was highly educational to me.	6.00 (.94)	-1.33*	3.71*
EDU2	This visit stimulated my curiosity to learn new things.	5.90 (1.00)	-1.39*	3.62*
EDU3	The experience has made me more knowledgeable.	5.97 (.91)	-.95*	1.36*
EST1	The setting really showed attention to design detail.	6.41 (.76)	-1.72*	4.15*
EST2	Just being here was very pleasant.	6.27 (.82)	-1.28*	2.08*
EST3	The setting was very attractive.	6.53 (.78)	-2.24*	7.27*
ESCP1	This visit allowed me to "get away from it all."	5.35 (1.40)	-.84*	.37
ESCP2	I got so involved during my visit that I lost track of time.	5.21 (1.43)	-.61*	-.12
ESCP3	The experience made me feel like I was in another world	5.04 (1.34)	-.47*	.11
ENT1	The activities of others were amusing to watch.	4.63 (1.36)	-.33	.03
ENT2	I really enjoyed watching what others were doing.	4.54 (1.49)	-.35*	-.02
ENT3	Watching activities of others was very entertaining.	4.58 (1.47)	-.33*	-.06

Note. Univariate summary statistics. Response options for all items are *strongly disagree* to *strongly agree* (7 pt. scale).
*$p < .05$

square error of approximation (RMSEA), standardized root mean square residual (SRMR), and the Model AIC. For the χ^2/df ratio, a ratio less than three indicates a good fit. Recognized standards for the other indicators are as follows: .95 for CFI; .08 or lower is a good fit for RMSEA while .05 or lower means an excellent fit. Standardized RMR looks for .08 or lower; and the Model AIC is used to compare the models so a lower number indicates a better model (as cited in Jensen, Carcioppolo, King, Scherr, Jones, & Niederdieppe, 2013).

The base model was a poor fit, S-B χ^2 (54, $N = 207$) = 512.69, $p < .001$, χ^2/df ratio = 9.49, CFI = .82, RMSEA = .24, SRMR = .13, Model AIC = 2129.68. Since previous studies (Oh et al., 2007; Hosany & Witham, 2010) indicated a four factor structure, this model was tested next. The four factor structure was an excellent fit, S-B χ^2 (48, $N =$ 207), $p < .05$, χ^2/df ratio = 1.43, CFI = .99, RMSEA = .06 (90% CI: .04 .08), SRMR = .05, Model AIC = 1545.28. However, there was a high correlation between the education factor and the escapism factor (Figure 6) which seemed to indicate an overlap in the

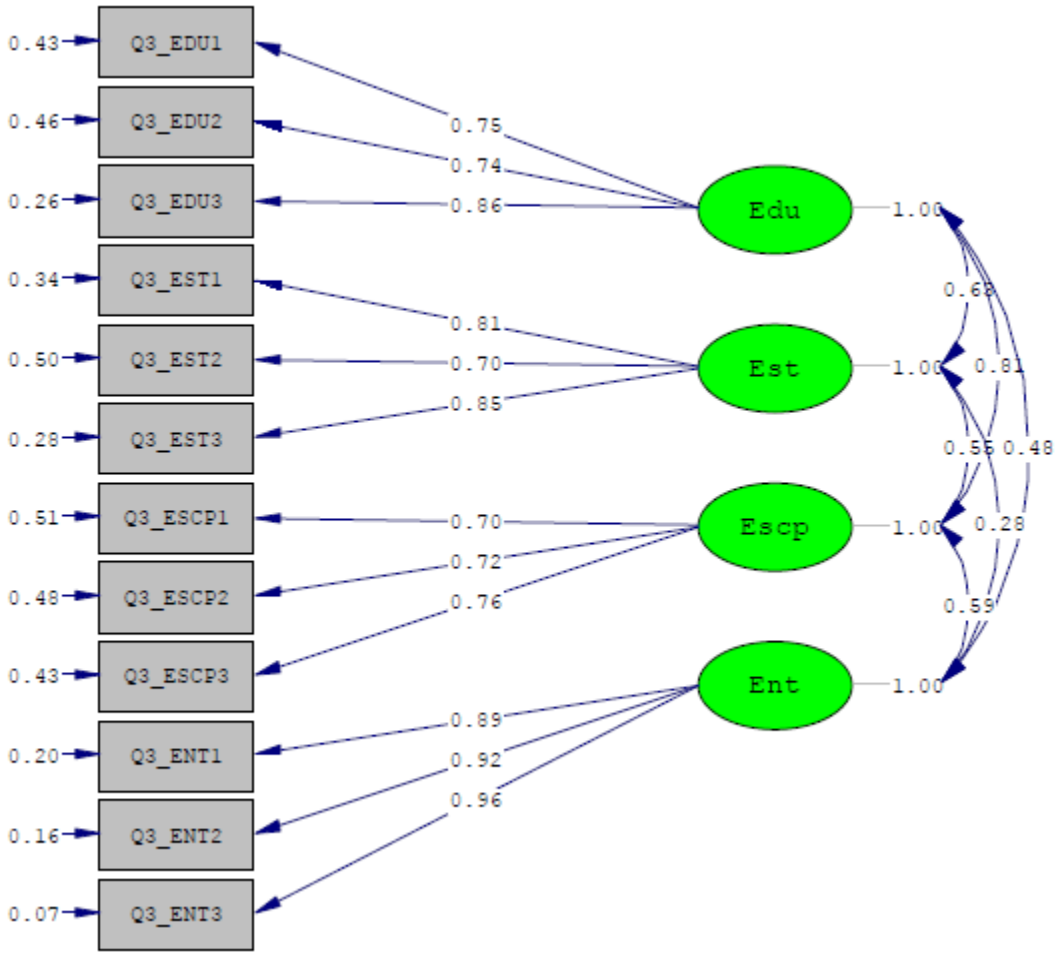


Figure 6: CFA Four Factor Model

items or that perhaps these factors should be combined. A three factor structure was tested combining the items under education and escapism. However, the three factor structure was not shown to be a better model than the four factor structure, S-B χ^2 (51, *N* = 207) = 96.91, p < .001, χ^2/df ratio = 1.90, CFI = .98, RMSEA = .08, SRMR = .06, Model AIC = 1571.77. The 12 items were used to create four measures. Of these measures, respondents rated esthetics (*M* = 6.40, *SD* = .68) highest, followed by

education (M = 5.96, SD = .81), escapism (M = 5.19, SD = 1.17) with the lowest scores reported for entertainment (M = 4.58, SD = 1.37).

The results show that four dimensions of the ExEc framework were evident in a museum setting. Therefore, Hypothesis 1 is disconfirmed.

ExEc Measures and the Cognitive Variables

The second research question examined the relationship between each ExEc measure and cognitive variables from previous studies: memory, arousal, perceived quality, satisfaction. After testing the reliability of each ExEc measure: education (M = 5.96, SD = .81, α = .82, *skewness* = -.92, *kurtosis* = 1.47); esthetic (M = 6.40, SD = .68, α = .82, *skewness* = -1.55, *kurtosis* = 2.86); escapism (M = 5.19, SD = 1.17, α = .77, *skewness* = -.62, *kurtosis* = .38); entertainment (M = 4.58, SD = 1.37, α = .95, *skewness* = -.41, *kurtosis* = .10), partial correlations were used to examine the relationships between these measures and the cognitive variables. Education was positively related to memory (r = .48), arousal (r = .44), perceived quality (r = .41), and satisfaction (r = .48). Esthetic was also positively related to memory (r = .40), arousal (r = .41), perceived quality (r = .46), and satisfaction (r = .52). Escapism was positively related to memory (r = .29), arousal (r = .27) and satisfaction (r = .29) but unrelated to perceived quality. Entertainment was negatively related to perceived quality (r = -.14) and unrelated to memory, arousal and satisfaction.

For hypothesis 2A, there was no relationship between entertainment and (a) memory, (b) arousal, and (d) satisfaction. However, there was a negative relationship between entertainment and (c) perceived quality. For hypothesis 2B, a positive

relationship exists between education and each of the cognitive variables, disconfirming the hypothesis. Hypothesis 2C was confirmed for the relationship between escapism and (c) perceived quality. However, the hypothesis was disconfirmed due to the positive relationship between escapism and (a) memory, (b) arousal, and (d) satisfaction. Hypothesis 2D was disconfirmed because a positive relationship exists between esthetics and each of the cognitive variables.

ExEc Measures and Behavioral Intentions

The third research question examined whether or not direct relationships existed between the ExEc measures and the behavioral intentions of intention to recommend, intention to visit, and engaging in information seeking behavior. Education was positively related to intention to recommend (r = .27) and information seeking behavior (r = .18) and unrelated to intention to visit. Esthetic was positively related to intention to recommend (r = .51), intention to visit (r = .15), and information seeking behavior (r = .17). Escapism was also positively related to intention to recommend (r = .14), intention to visit (r = .24), and information seeking behavior (r = .20). Entertainment was negatively related to intention to recommend (r = -.21), positively related to intention to visit (r = .14), and unrelated to information seeking behavior.

Hypothesis 3A was disconfirmed for entertainment and (a) intention to recommend; disconfirmed for entertainment and (b) intention to visit; and confirmed for entertainment and (c) information-seeking behavior. Hypothesis 3B was disconfirmed for education and (a) intention to recommend and (c) information-seeking behavior; and confirmed for education and (b) intention to visit. Hypothesis 3C was disconfirmed for

escapism and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior. Hypothesis 3D was disconfirmed for esthetic and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior.

Mediation relationships

The fourth research question sought to build upon previous studies by examining each of the cognitive variables as possible mediators between the ExEc dimensions and the behavioral intentions. In order to test each of the cognitive variables (memory, arousal, perceived quality, and satisfaction) as possible mediators simultaneously, PROCESS Model 4 was used. Again, the benefits of using PROCESS are that both direct and indirect effects are tested and that all indirect effects are subjected to bootstrapping to better understand the stability of the indirect effect (Hayes, 2012). All tests in PROCESS were run with 1,000 bootstrap samples and a 95% CI. Indirect effects are nonsignificant when the 95% CI overlaps zero. For each of the models, one of the behavioral intentions was the outcome variable with one of the ExEc dimensions input as the independent variable. The cognitive variables were input as possible mediators with the underlying assumption that they all could mediate the relationship between the ExEc realm and the behavioral intention being tested. The other ExEc dimensions not being tested were input as covariates in the model.

Education

The first model analyzed education and intention to recommend. The total effects model was significant, $R^2 = .52$, F (4, 197) = 53.35, $p < .001$. In the parallel mediation

model, education still showed significant relationships to each of the cognitive variables but no longer showed a significant direct effect on intention to recommend. There were significant indirect effects through perceived quality and satisfaction which accounts for the total effect of education on intention to recommend (Figure 7).

The next model looked at education and intention to visit. Education once again was related to each of the four mediator variables: memory (b = .46, SE = .06, t = 7.68, p <.001), arousal (b = .36, SE = .05, t = 6.89, p < .001), perceived quality (b = .33, SE = .05, t = 6.32, p < .001) and satisfaction (b = .43, SE = .06, t = 7.66, p < .001). However,

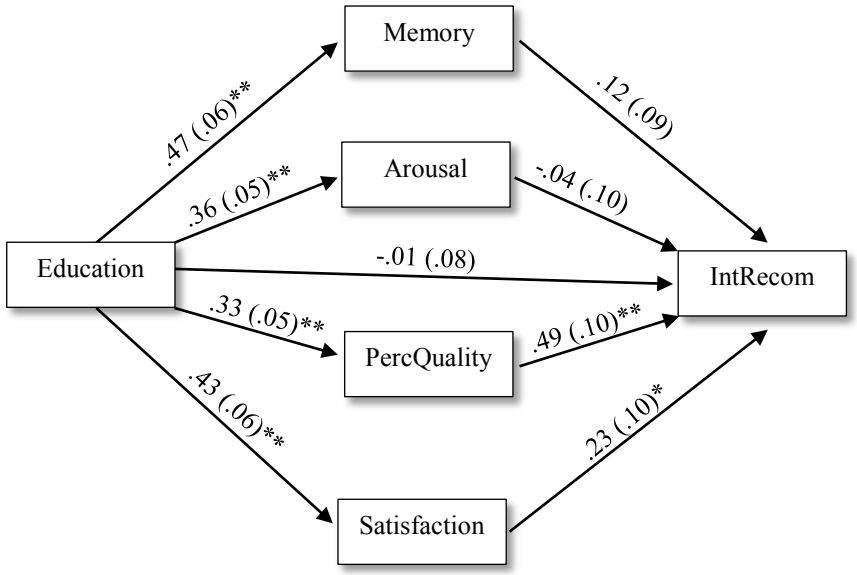


Figure 7. Education and Intention to Recommend Parallel Mediation Model.
*p < .05 **p < .01
Total effect of Education: b = .29, SE = .07
Direct effect of Education: b = -.01, SE = .08
Indirect effect via Perceived Quality: b = .16, SE = .04, 95% bootstrap CI: .0898, .2592
Indirect effect via Satisfaction: b = .10, SE = .05, 95% bootstrap CI: .0130, .1995

none of the mediators were related to intention to visit. Additionally, education appears to have no effect on intention to visit.

In the model exploring education and information seeking behavior, the total effects model was significant, R^2= .29, F (4, 195) = 20.31, p < .001. While there was a significant total effect of education on information seeking behavior, (b = .31, SE = .12, t = 2.67, p = .0083), the direct effect disappeared and none of the mediators tested were significant.

Esthetic

Again, the total effects model for intention to recommend was significant, R^2= .52, F (4, 197) = 53.35, p < .001. Esthetics had significant relationships with each of the cognitive variables as well as a significant direct effect on intention to recommend (see Figure 8). As perceived quality and satisfaction have significant indirect effects in the parallel mediation model, these variables mediate the relationship between the esthetic dimension and intention to recommend.

The total effect model for intention to visit was significant, R^2 = .28, F (4,196) = 18.86, p < .001. Esthetic was still significantly related to each of the cognitive variables: memory (b = .37, SE = 06, t = 6.07, p < .001), arousal (b = .33, SE = .05, t = 6.27, p < .001), perceived quality (b = .37, SE = .05, t = 7.16, p < .001), and satisfaction (b = .49, SE = .06, t = 8.58, p < .001). None of the cognitive variables were related to intention to visit. There was a significant total effect of esthetic on intention to visit (b = .27, SE = .13, t = 2.05, p = .04) but no direct effect and no mediation effects were significant.

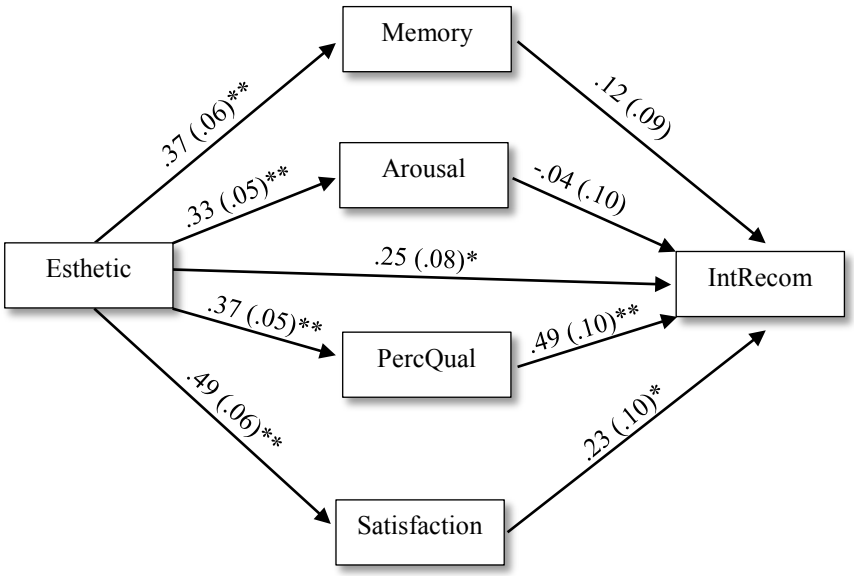


Figure 8. Esthetic and Intention to Recommend Parallel Mediation Model.
*p < .05 **p < .01
Total effect of Esthetic: b = .58, SE = .07
Direct effect of Esthetic: b = .25, SE = .08
Indirect effect via Perceived Quality: b = .18, SE = .05, 95% bootstrap CI: .0961, .2993
Indirect effect via Satisfaction: b = 11, SE = 06, 95% bootstrap CI: .0016, .2523

When looking at the esthetic and information seeking behavior parallel mediation model, the total effects model was significant, R^2 = .29, F (4,195) = 20.31, p < .001, as was the total effect of esthetic on information seeking behavior (b = .27, SE = .12, t = 2.27, p = .02). Esthetic was still significantly related to each of the cognitive variables: memory (b = 37, SE = 06, t = 6.03, p < .001), arousal (b = .33, SE = .05, t = 6.34, p < .001), perceived quality (b = .37, SE = .05, t = 7.14, p < .001), and satisfaction (b = .49, SE = .06, t = 8.55, p < .001). No significant direct or indirect effects were found.

Escapism

In examining escapism and intention to recommend, the escapism dimension was related to memory (b = .17, SE = .04, t = 4.24, p < .001), arousal (b = .14, SE = .04, t = 3.91, p < .001), and satisfaction (b = .16, SE = .04, t = 4.23, p < .001). Perceived quality and satisfaction were significantly related to intention to recommend. Escapism had no significant total effect on intention to recommend.

The total effects model for intention to visit was significant R^2 = .28, F (4,196) = 18.86, p < .001. The total effect of escapism on intention to visit was also significant, (b = .31, SE = .09, t = 3.49, p < .001). The direct effect of escapism was also significant (b = .27, SE = .09, t = 2.88, p < .01). However, there were no significant indirect effects.

In the parallel mediation model for escapism and information seeking behavior, escapism was related to memory (b = .17, SE = .04, t = 4.21, p < .001), arousal (b = .14, SE = .04, t = 4.04, p < .001), and satisfaction (b = .16, SE = .04, t = 4.19, p < .001). None of the cognitive variables were related to information seeking behavior. Escapism has a significant total effect (b = .23, SE = .08, t = 2.87, p < .01) and direct effect (b = .17, SE = .09, t = 2.02, p = .04) on information seeking behavior.

Entertainment

When analyzing the parallel mediation model for entertainment and intention to recommend, entertainment is negatively related to perceived quality (b = -.05, SE = .02, t = -2.02, p = .04) and perceived quality is related to intention to recommend (b = .49, SE = .10, t = 5.15, p < .001). Entertainment has a significant total effect (b = -.10, SE = .03, t = -3.05, p = .002), direct effect (b = -.08, SE = .03, t = -2.62, p < .01), and indirect effect (b

= -.02, *SE* = .01, *p* = .002, 95% bootstrap CI: -.0549, -.0042) intention to recommend.

The entertainment dimension had no significant total, direct or indirect effect on either the intention to visit or information seeking behavior.

Hypothesis 4A was confirmed for entertainment and (b) intention to visit and (c) information-seeking behavior and disconfirmed for (a) intention to recommend. The relationship between education and (a) intention to recommend was mediated by perceived quality and satisfaction, disconfirming hypothesis 4B. However, hypothesis 4B was confirmed for the mediating relationship between education and (b) intention to visit and (c) information-seeking behavior. The cognitive variables did not mediate the relationship between escapism and (a) intention to recommend, (b) intention to visit, and (c) information-seeking behavior, confirming hypothesis 4C. Hypothesis 4D was disconfirmed as perceived quality and satisfaction mediate the relationship between esthetic and (a) intention to recommend. For (b) intention to visit and (c) information-seeking behavior, hypothesis 4D was confirmed as the cognitive variables did not mediate the relationship.

Museum Specific Research Questions

Relevant sites

As the museum seeks to foster a connection between sites depicted in the NHMU and actual sites found in Utah, question five examined which sites visitors were most interested in visiting or learning more about. Not every participant responded to the relevant open-ended question (*N* = 113).

After a short training, three coders went through the data and coded responses as either "museum relevant sites" or "not relevant." To assess intercoder reliability for three coders, Krippendorf's Alpha for museum relevant sites was calculated (.84). An independent samples *t*-test was then performed to understand if there was a difference between the respondents who had ExEc dimension experiences reporting an interest in visiting or learning more about museum relevant sites. While respondents who had education experiences reported more interest in museum relevant sites ($M = 6.12$, $SD = .67$) than not ($M = 5.908$, $SD = 1.09$); the difference was not significant. For education experiences, Levene's test for equality of variances was significant ($p = .01$), so equal variances were not assumed. Levene's test for equality of variances was not significant for esthetic ($p = .17$), escapism ($p = .20$), or entertainment ($p = .47$) so equal variances were assumed. For esthetic experiences, respondents also reported more interest in museum relevant sites ($M = 6.54$, $SD = .43$) than not ($M = 6.47$, $SD = .76$). For entertainment experiences, respondents reported less interest in museum relevant sites ($M = 4.66$, $SD = 1.38$) than not ($M = 4.76$, $SD = 1.30$). However, there was no statistical difference for esthetic or entertainment experiences. For escapism experiences, there was a statistical difference between respondents who reported nonrelevant sites ($M = 5.01$, $SD = 1.18$) and those that reported relevant sites ($M = 5.54$, $SD = 1.02$; $t(111) = -2.30$, $p = .02$, $d = -.48$).

The responses that were deemed relevant to specific sites depicted in the NHMU were then analyzed qualitatively to better understand which exhibits and sites respondents were most interested in. Overwhelmingly, the responses included some mention of the Past Worlds Gallery (Appendix B), which is the gallery containing the

museum's collection of dinosaurs. Within the responses that mentioned Past Worlds, more than one-third of the responses specifically mentioned the Cleveland-Lloyd Dinosaur Quarry located in southern Utah. The other permanent exhibit mentioned most often in the responses was the Great Salt Lake exhibit. The special exhibit, Nature Unleashed, which opened 1 month before data collection began was the other most mentioned exhibit in the responses.

Hypothesis 5 was disconfirmed as a relationship exists between the ExEc dimensions and the intention to visit museum relevant sites.

Interpretation themes

The final research question sought to understand the extent that visitors to the NHMU recognize the interpretive themes throughout the museum. The question was posed as: "The NHMU galleries seek to create a connection between visitors and the rich history of Utah. Four major themes guide how the information in each gallery is presented. From your experience, what overall themes does the NHMU communicate to visitors?" and 138 participants responded. First, the nonresponses were excluded from further analysis. Second, the responses that mentioned specific exhibits within the museum but did not touch on interpretive themes were coded. Between these first two categories, 71 responses were excluded as having no relevance to interpretive themes. The remaining responses were further analyzed for interpretive themes. The most prevalent theme was ecology and, grouped within ecology, connections. Themes of evolution and change, diversity, conservation and education were found in the responses as well. These themes are similar to the four themes laid out in the NHMU's overall

interpretive plan for their exhibits – evolution, ecology, diversity, and making a difference (Appelbaum & Associates, 2008). While museum visitors recognized NHMU's interpretive themes, they were mentioned to varying extents.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

The purpose of this study was to (1) empirically test the appropriateness of the ExEc scale in a museum setting; (2) establish whether or not a relationship exists between the ExEc realms and the cognitive variables of memory, arousal, perceived quality, and satisfaction in a museum setting; and (3) establish whether or not a relationship exists between the ExEc realms and three behavioral intentions and determine whether the cognitive variables mediate this relationship.

Summary of Procedures and Treatment of Data

A stratified systematic sampling strategy was chosen for this study. On-site sampling was conducted at the admission checkpoint on Level 2 of the NHMU (Appendix B) from June 4 to August 10, 2013. Respondents were asked to complete an online survey and provide an email for follow up purposes. The sample for this study consisted of 403 subjects, 207 of whom returned useable questionnaires resulting in a net response rate of 51.4%. This final sample met suggested guidelines for sample sizes needed for confirmatory factor analysis (Wolf, Harrington, Clark, & Miller, 2013). A comparison of the demographic profiles from this study and a stay-time study previously

conducted at the NHMU (Becker, 2012) indicated that the sample was representative of the NHMU visitor population.

Summary of Findings and Discussion

Experience Economy Framework

One of the primary purposes of this study was to test whether the dimensions of the ExEc were prevalent in a museum setting by testing an existing ExEc scale in a new context. Confirmatory factor analysis (CFA) was conducted in LISREL. As the data presented significant multivariate abnormality, the asymptotic covariance matrix was used. Baseline model (one factor; 12 indicators) proved to be a poor fit for the data. The ExEc framework suggested a four factor structure (Pine & Gilmore, 1999; Oh et al., 2007, Hosany & Witham, 2010). This model (four factors; three indicators per factor) provided an excellent fit to the data with all factor loadings .70 or higher. The high correlation between the education factor and the escapism factor indicated a possible overlap in the items. A three factor structure that combined education and escapism was tested to see if perhaps these factors should be combined. The four factor structure was still the better model for the data. As with previous studies, esthetics was the highest rated dimension. Education was the second highest rated dimension in this context. These findings were in contrast to Hosany and Witham (2010), where esthetics was highest rated with entertainment as the next highest rated dimension. The escapism items used in this study were revised and based upon the experiential value scale (EVS) from (Mathwick et al., 2001).

In the context of this study, these items performed better than the entertainment

dimension. A plausible reason for the low performance of the entertainment items were their lack of context for a museum setting. For example, in Hosany and Witham (2010), the entertainment items were inquiring specifically about the "onboard activities." The original items from Oh et al. (2007) were more general to allow for use across a variety of rich experience environments. In a museum or similar setting, instead of using the general items such as "The activities of others were amusing to watch," these items should read "The activities of others *in my party* were amusing to watch." Because a majority of respondents visited the museum in the company of others, this additional wording for the items could provide the needed context. Another plausible explanation for the low performance of the entertainment items was that the items do not fully measure the entertainment realm. In the CFA, the entertainment items had the highest factor loadings. So the three items used measured the same concept but perhaps the concept measured was only one dimension of entertaining experiences.

ExEc measures and the cognitive variables

The initial outcome variables of memory, arousal, perceived quality, and satisfaction were tested as they are believed to be consequences of a touristic experience (Baker & Crompton, 2000; Crompton et al., 1991; Oh et al., 2007; Tomas et al., 2002). Some of these variables were also found as outcomes of a museum experience (Bitner, 1992; McManus, 1993; Silverman, 1995). To test the relationships between the ExEc measures and memory, arousal, perceived quality, and satisfaction, partial correlations were conducted for each realm controlling for the other realms. In this study, education and esthetics were positively related to memory, arousal, perceived quality, and

satisfaction. Additionally, escapism was positively related to memory, arousal, and satisfaction but unrelated to perceived quality. This is in direct contrast to the results from Hosany and Witham (2010) where escapism was only related to perceived quality. While this seems to indicate that the items adapted from EVS are better able to measure the escapism realm, there are some lingering issues with measuring this realm. In this study, entertainment was negatively related to perceived quality and unrelated to the other outcome variables.

ExEc measures and behavioral intentions

Hosany and Witham (2010) tested to see if satisfaction mediated the relationship between the ExEc dimensions and cruisers' intention to recommend. The relationship between satisfaction and behavioral intentions has been studied (Baker & Crompton, 2000; Hosany & Gilbert, 2009; Lee et al., 2004). For this study, intention to recommend was examined because of its inclusion in previous studies as well as for its practical marketing application. Additionally, the intention to visit and the intention to engage in information-seeking behavior were determined to be relevant to the NHMU's interpretive plan and strategic goals. Previous studies focused on the intention to revisit the location (Harrison & Shaw, 2004; Lee et al., 2004). For this study, the intention was changed to reflect the NHMU's purpose of fostering a connection for visitors between a site depicted in the galleries and the actual location for that site. Consumer research has studied the intention to engage in information-seeking behavior in retail and online environments (Kiel & Layton, 1981; Peterson & Merino, 2003). In these studies, the purpose of studying this intention was to better understand purchasing decisions. For this study, the

interest revolved around whether or not visitors wanted to learn more about sites they had seen depicted at the NHMU. Before testing for mediation, the direct relationships between the ExEc realms and each of these behavioral intentions were examined. In this study, intention to recommend was positively related to education, esthetic, and escapism and negatively related to entertainment. Intention to visit was positively related to esthetic, escapism, and entertainment dimensions and unrelated to education. Information-seeking behavior was related to education, esthetic, and escapism but unrelated to entertainment.

Mediation relationships

To test for mediation effects, PROCESS Model 4 was used. PROCESS is regression based and reports the total effects model while allowing for comparison between the total effect of X on Y and the direct and indirect effects. Also, all indirect effects are subjected to bootstrapping to allow for more stability (Hayes, 2012). All of the cognitive variables were input as possible mediators with the assumption that each could mediate the relationship between the experience realm and the behavioral intention variables being tested in each model.

Intention to recommend

For intention to recommend, the total effects model was significant. Education was related to each of the cognitive variables. Esthetic was also related to each of the cognitive variables. Escapism was related to memory, arousal, and satisfaction but not perceived quality while entertainment was negatively related to perceived quality but no

other cognitive variables. Of the cognitive variables only perceived quality and satisfaction were related to intention to recommend and are the only variables in the model likely to mediate the relationship.

For education, the direct effect on intention to recommend is no longer significant with perceived quality and satisfaction in the model as mediators. Therefore it appears that both perceived quality and satisfaction have a mediating effect on the relationship between education and intention to recommend.

For esthetic, while both perceived quality and satisfaction have significant indirect effects, perceived quality may be stronger as a mediator because the 95% CI for satisfaction is approaching zero. Additionally, esthetic still has a direct effect on intention to recommend, indicating that there may be another variable not in the model that mediates the relationship.

As escapism was not related to perceived quality, satisfaction remained as the only possible mediator for the relationship between this realm and intention to recommend. The total effect of escape on intention to recommend approached significance ($p = .06$), but as it was not significant, the indirect effect of satisfaction on this relationship was not reported. There appear to be problems still with measuring escapism experiences. Because of these potential issues, any significant effects are subject to the limitations of this study.

While the entertainment dimension was negatively related to perceived quality and perceived quality is related to intention to recommend, this may not represent a mediating effect. As stated previously, there are concerns with the underperformance of the entertainment dimension as compared to previous studies which could stem from a

lack of contextualization of the items used to measure entertainment. Until these issues are resolved in a similar context, this mediating relationship, while shown as being significant may not exist.

Intention to visit

None of the cognitive variables were related to intention to visit which is needed in order for mediation to occur. The total effects model was significant. Esthetics still had a significant total effect on intention to visit but no direct or indirect effects. Escapism had a significant total and direct effect but no indirect. Entertainment had no significant total, direct or indirect effect on intention to visit. As this behavioral intention deviated from the intention to revisit that had been studies previously, the single item used to measure intention to visit may not have captured respondents' true intentions to visit museum relevant sites.

Information-seeking behavior

For this behavioral intention, the total effect model was significant. However, none of the cognitive variables were significant at $p < .05$. Arousal approached significance at $p = .07$. Without significant b paths for cognitive variables, mediation for any of these relationships was a moot point. Education and esthetic each had a significant total effect on information seeking behavior. Interestingly, the escapism dimension had a total effect, direct effect, and an indirect effect through arousal on information-seeking behavior. This would be a relationship to explore in future research. Entertainment was found to have no significant total, direct or indirect effect on

information-seeking behavior.

In some cases, the initial relationships detected between the ExEc dimensions and the behavioral intention variables did not hold up when subjected to bootstrapping in the parallel mediation model. Intention to recommend was the exception in this study. For future tests of mediation using this instrument, both perceived quality and satisfaction should be considered as possible mediators in the relationship between the ExEc dimensions and intention to recommend.

Museum relevant questions

While not every participant chose to respond to the open-ended questions, there were valuable insights from the participants who did respond to each question.

In seeking to understand which sites depicted in the museum visitors were most interested in either visiting or learning more about, there were 113 responses (54.5% of total sample); 84 responses (40.5% of total sample) were determined to be museum relevant responses. For respondents who had education and esthetic experiences, there was more interest in museum relevant sites. However, the difference between the groups who reported more interest in museum relevant sites was not statistically different from those who did not. Respondents with entertainment experiences reported less interest in museum relevant site, but again the difference between the groups was not significant. For escapism experiences, there was a statistical difference between the groups who reported an interest in museum relevant sites and those who did not.

Of the responses that reported an interest in museum relevant sites, most of responses included some mention of the Past Worlds gallery, which is home to the

NHMU's collection of dinosaur artifacts and paleontology lab. Roughly one-third of the responses that discussed Past Worlds mentioned specific references to the Cleveland-Lloyd dinosaur quarry located near Price, Utah and managed by the Bureau of Land Management. This quarry is home to the largest concentration of Jurassic-aged dinosaur bones that has ever been found (BLM, 2013). There are quite a number of mysteries surrounding the discoveries at the quarry and scientists are at odds over the explanation of such a large find. The Past Worlds gallery at NHMU was allocated the most space within the Rio Tinto Center. The section of Past Worlds that pertains directly to the Cleveland – Lloyd Quarry is tucked into a corner. While there are artifacts from the quarry located nearby, video screens present four differing theories about why such a concentration of dinosaur bones exists and why so many were found in that area of Utah. Despite a slightly out of the way location, this was the exhibit most often specifically referenced in the relevant site responses. The overall effectiveness of visitors' ability to recall this particular piece of a much larger exhibit speaks to the power of the interpretation. It sparks an interest in visitors by presenting differing arguments and allows the visitor to take in each theory to determine their own beliefs about what might have happened. Each argument provided a complete story to the visitor that informs and inspires visitors to want to know more. This speaks specifically to Tilden's (1977) fourth principle of the "chief aim of interpretation is not instruction, but provocation" by giving visitors the opportunity to draw their own conclusions after hearing the arguments. While it may not meet all of the guiding principles for interpretation described in Beck and Cable (2002), it certainly encompasses the intent behind most of the principles and provides a case for the use of technology (Figure 3) in interpretation efforts.

For the open-ended question that sought to understand whether or not visitors were recognizing the overarching interpretive themes that inform all of the NHMU's exhibits, 138 responses (66.7% of total sample) were received. After excluding the responses that considered nonresponses and the responses that spoke only about exhibits and not about interpretation themes, 67 responses (32.4% of total sample) were qualitatively analyzed for interpretation themes. As the terms "connections" and "history" were both used to help contextualize the question, there is concern over the use of these words in participants' responses. The responses that included the term "connection" or "interconnectedness" were included under the theme of ecology. The overarching interpretive themes laid out in the NHMU's overall interpretive plan were: evolution (change), ecology (connections), diversity, and making a difference (Appelbaum & Associates, 2008). Evolution and ecology were the most recognized interpretive themes. Evolution was recognized through the mention of changes over time such as "the past shapes the present." Perhaps in museums, education is not explicitly stated as an interpretive theme. However, in this study, many of the responses mentioned educational ideas such as "inquiry and discovery" or creating an "awareness." While some of the respondents may have misunderstood the question, others not only understood the question but were also able to communicate the interpretive themes that guide all of the NHMU's exhibits.

Conclusions

The results of this study demonstrate that the experience economy framework is a useful tool for understanding the visitor experience within a museum setting. Through

both quantitative and qualitative analyses, results indicate that this instrument is applicable to a variety of touristic settings. Within the limitations of this study, the following conclusions appear justified:

1) The experience economy framework is applicable to the fields of tourism, museum and visitor studies. The four factors (education, esthetics, escapism, entertainment) were evident in this study.
2) While varying in terms of their importance, the ExEc dimensions were related to the cognitive variables (memory, arousal, perceived quality, satisfaction) used in previous studies.
3) Intention to recommend is a relevant behavioral intention in this context and was related to the ExEc dimensions.
4) Perceived quality and satisfaction should be considered as mediators in the relationship between ExEc dimensions and intention to recommend.
5) NHMU visitors were interested in either visiting or learning more about sites they have seen depicted in museum exhibits.
6) The overarching interpretive themes of the NHMU were recognized by some of the visitors to the museum.

Implications for Practical Application

As the NHMU seeks to foster connections for visitors between sites depicted in the museum and their real world counterparts, the results of this study suggests ways to further that connection. The two galleries mentioned most frequently in the responses for question five were Past Worlds and Great Salt Lake. However, information on how to

learn more is not prevalent. The NHMU has a way-finding system that can be accessed via smartphone; this system has its own themes and highlights different installations in the galleries that may be overlooked otherwise. It also provides more information about some of the sites depicted in the museum. Finding ways to help the visitor fully utilize this system may affect the overall visitor experience and provide a greater sense of connection. Evolution, ecology, and diversity were themes that arose from the qualitative analysis of the responses for question six that corresponded with the overarching interpretive themes that influenced the design of all exhibits at the NHMU. However, their theme of making a difference was found to be absent in the responses. By fully utilizing the way-finding system (which has a sustainability theme) or finding other ways to raise an awareness of what actions visitors can implement in their daily routines, the NHMU can have this theme more recognized.

Recommendations for Future Research

The CFA indicated that there may be a lingering issue with the escapism realm measure. While the escapism items from the EVS (Mathwick et al., 2001) performed better than in previous studies, the high correlation between education and escapism is a cause for concern.

The escapism dimension has been linked to the need for optimal arousal through leisure motivation (Dunn & Iso-Ahola, 1991; Snepenger et al., 2006). Future versions of this scale, if tested in a similar context, should consider refining the items for arousal to reflect the need for optimal arousal which differs depending upon personality type on the extraversion/introversion scale. The questions as they stand currently seem designed for

participants who are seeking higher stimulation experiences (like entertainment experiences). The escapism realm is more relevant for visitors escaping overstimulation. The questions used for arousal do not resonate with someone who is escaping overstimulation in their daily life and is seeking calming experiences.

The open-ended question about museum relevant sites provided some very interesting insights into the interests of the NHMU's visitors. However, the question was worded to include sites they wanted to visit and sites they wanted to learn more about. If used in the future, these questions should be separated in order to better distinguish between which sites people will actually visit and which sites illicit a desire for more information.

The results of this study resolved some issues from the previous studies but raised other concerns as well. This instrument could be useful in a variety of settings and needs further refinement. For the NHMU, this study provides a greater insight into what their visitors experience while at the museum and suggests areas for further development.

APPENDIX A

NHMU STRATEGIC GOALS 2012-2016

We will be a regional research center. Our research and scholarship contributions will expand:

- more faculty curators including establishing endowed chairs,
- more grants and publications,
- growth of field research, including establishment of a fieldwork endowment and the growth of our Range Creek Research Station,
- with a particular focus on collaborative and interdisciplinary science, and
- research results will be communicated to the broadest possible public.

We will be a top regional destination based on the quality of the visitor experience:

- continue to invest in the media experience for visitors, both in-gallery and online,
- regularly assess the quality of interpretation, updating content, and keep abreast of new technological developments,
- create public interest in science and communicate its excitement and pertinence through temporary exhibits, in our permanent galleries and through public and school programs, and
- offer an authentic Utah experience with a focus on human interaction in the galleries.

We will be the state museum of natural history:

- by providing high quality science education to and promoting STEM careers in public schools statewide,
- by providing virtual and actual outreach and forming and maintaining robust partnerships with Utah communities statewide,
- by being a center for the interpretation of Native cultures as well a destination for Native peoples, and
- the diversity of our audience and in our staff and volunteers will reflect the diversity of Utah.

We will be a center for university student engagement:

- expand student support including graduate student assistantships, undergraduate scholarships, internships,

- explore unique degree and/or certificate programs including disciplinary research, object conservation and/or master naturalist, and
- expand job opportunities.

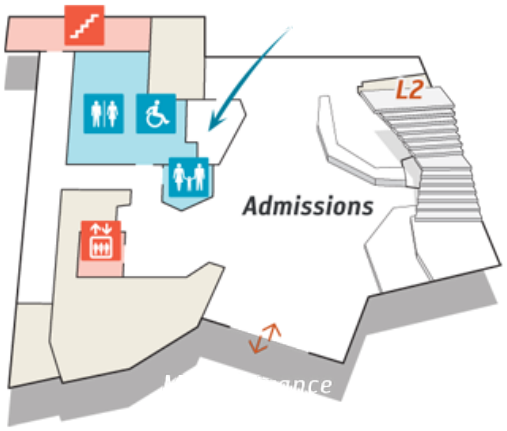
We will be a truly sustainable institution:

- our choices will be green,
- by investing in the development of our staff, board, and volunteers,
- by seeking strategic partnerships with agencies, businesses, cultural and educational organizations,
- by exceeding our goals for earned income and annual giving as laid out in the business plan and building a reserve that will provide a cushion during economic downturns as well as the ability to proactively invest in innovation,
- by exceeding our attendance goals, seeking measurable feedback on the quality of the visitor experience, and using the results for improvement, and
- we will measure, document, and communicate the economic impact of the Museum, as well as the return on the community's investment in the Rio Tinto Center.

APPENDIX B

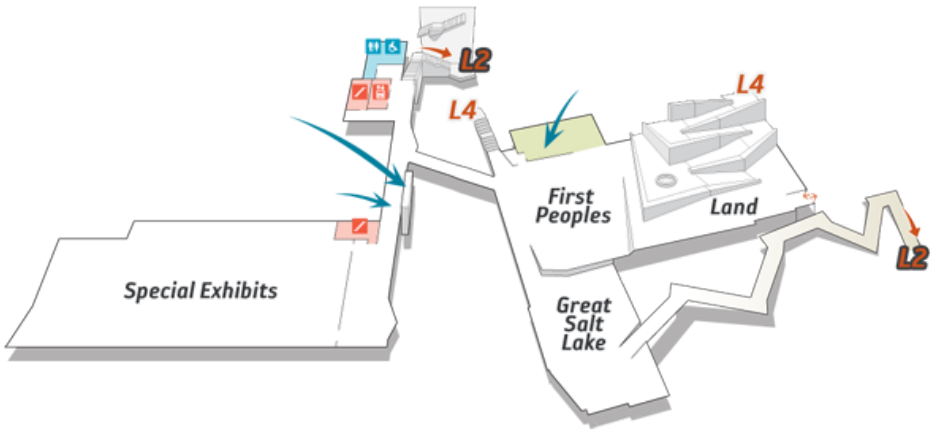
NHMU GALLERY LEVELS

Level 1



Level 2

Level 3



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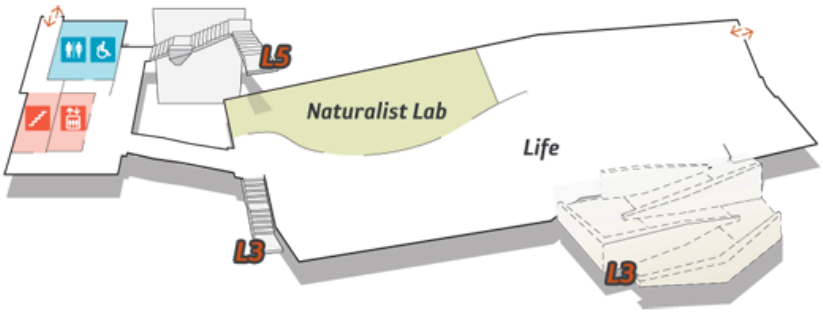
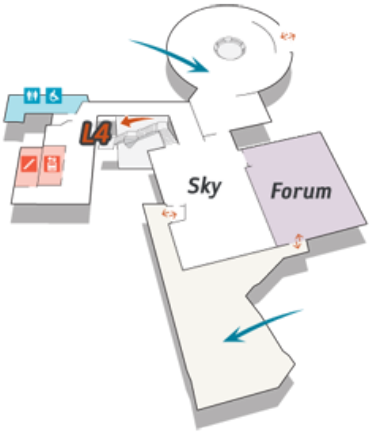


Level 5



APPENDIX C

JOB DESCRIPTION FOR NHMU VOLUNTEER COORDINATOR:

A visitor experience study will be conducted between (dates) as part of a master's thesis project. This will be an online survey so data collectors will be responsible for selecting participants as they pass through the admission checkpoint in the Canyon and providing them with a study information sheet that includes the survey link. This is a volunteer position that requires an ability to commit to three-hour time blocks for data collection. Interested parties should contact Anita Ledford at anita.k.ledford@gmail.com or 704-692-7626.

APPENDIX D

SURVEY INSTRUMENT

Consent Cover Letter

The purpose of this research study is to gain a better understanding of the visitor experience at the Natural History Museum of Utah (NHMU) using concepts from The Experience Economy. The results from this study will provide valuable information the NHMU can use to improve our visitors' experiences.

It should take 10 – 15 minutes to complete the questionnaire. Participation in this study is voluntary. You can choose not to take part. You can choose not to finish the questionnaire or omit any question you prefer not to answer without penalty. The email you provided at the NHMU will only be used for follow-up and will not be shared.

If you have any questions or complaints about this study please contact Anita Ledford, Department of Parks, Recreation & Tourism, University of Utah, at 704-692-7626 or nhmu.exp.study@gmail.com.

Please contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

By clicking below, you are indicating that you have read the description of the study and agree to participate in the study. Your response is important to us, thank you for your participation.

1. What was your primary motivation for visiting the Natural History Museum of Utah (NHMU) today?

2. What did you enjoy most about your visit to the Natural History Museum of Utah (NHMU) today?

Page 2

3. To what extent do the following statements describe your most recent visit to the NHMU?

	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
I got so involved during my visit that I lost track of time.							
Watching activities of others was very entertaining.							
The visit allowed me to "get away from it all."							
The experience made me feel like I was in another world.							
This visit stimulated my curiosity to learn new things.							
The setting was very attractive.							
The setting really showed attention to design detail.							

Just being here was very pleasant.							
The experience was highly educational to me.							
The activities of others were amusing to watch.							
I really enjoyed watching what others were doing.							
The experience has made me more knowledgeable.							

Page 3

4. To what extent do you agree with the following statements.

	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
My choice to visit the NHMU was a wise one.							
Overall, I have really enjoyed my visit to the NHMU.							
I will have wonderful memories about the NHMU.							
This visit was exactly what I needed.							
I won't forget my experience at the NHMU.							
I will remember many positive things about the NHMU.							

5. On a scale of 1 (lowest) to 5 (highest), please evaluate how each of the following questions describes your experience.

	1 Not at all	2 Slightly	3 Moderately	4 Highly	5 Extremely
How stimulating was your visit to the NHMU?	○	○	○	○	○
How interesting was your visit to the NHMU?	○	○	○	○	○
How enjoyable was your visit to the NHMU?	○	○	○	○	○
How exciting was your visit to the NHMU?	○	○	○	○	○

6. How would you rate the overall quality of your experience at the NHMU?

Very Poor	Poor	Fair	Good	Very Good
○	○	○	○	○

Page 4

7. I will recommend visiting the NHMU to others.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

8. I will visit sites I have seen depicted at the NHMU.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

9. I am interested in learning more about the sites I have seen depicted at the NHMU.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
○	○	○	○	○	○	○

10. Which sites depicted at the NHMU are you most interested in learning more about and/or visiting?

Page 5

11. What year were you born?

12. What is your gender?

- Female
- Male

13. What is the highest level of education you have completed?

- Graduated from high school
- Some college
- Graduated from college
- Some graduate school
- Completed graduate school

14. Do any of the following describe you? (Check all that apply)

- NHMU Member
- U of U Faculty
- U of U Student
- First-time visitor to NHMU
- Repeat visitor to NHMU

15. How many people were in your party at the NHMU?

- 1
- 2
- 3
- 4
- 5+

16. The NHMU galleries seek to create a connection between visitors and the rich history of Utah. Four major themes guide how the information in each gallery is presented. From your experience, what overall themes does the NHMU communicate to visitors?

17. Do you have any additional comments about your experience at the Natural History Museum of Utah?

REFERENCES

Alexander, E. P., & Alexander, M. (2007). *Museums in motion: An introduction to the history and functions of museums.* Lanham, MD: AltaMira Press.

American Alliance of Museums. (2013) *Facts.* Retrieved from http://www.aam-us.org/about-museums/facts.

Appelbaum Associates (2008). *Utah Museum of Natural History interpretive framework.* Internal document.

Baker, D. A. & Crompton, J. L. (2000). Quality, satisfaction and behavioral intentions. *Annals of Tourism Research. 27*(3): 785-804.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*: 1173-1182.

Beck, L. & Cable, T. (2002). *Interpretation for the 21st century: Fifteen guiding principles for interpreting nature and culture.* Urbana, IL: Sagamore Publishing. 2nd Ed.

Becker, B. (2012). NHMU stay-time study. (Research Report) Serrell & Associates

Bigne, J. E., Sanchez, M. I., & Sanchez, J. (2001). Tourism image, evaluation variables and after purchase 88ehavior: inter-relationship. *Tourism Management*. *22*(6): 607-616.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*. *56*: 57-71.

Bowen, D. & Clarke, J. (2002). Reflections on tourist satisfaction research: Past, present and future. *Journal of Vacation Marketing*. *8*(4): 297-308

Cohen, E. (1979). A phenomenology of tourist experiences. *Sociology*. *13*: 179-201

Cordua, C. (1986). A critique of esthetics. In M. Mitias (Ed.), *Possibility of the aesthetic experience*. Dordrecht: Martinus Nijhoff Publishers.

Crompton, J.L., MacKay, K. J., & Fesenmaier, D.R. (1991). Identifying dimensions of service quality in public recreation. *Journal of Park and Recreation Administration*. *9*(3): 15-27.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row, Publishers.

Del Bosque, I.R. & San Martin, H. (2008). Tourist satisfaction: A cognitive-affective model. *Annals of Tourism Research*. *35*(2): 551-573.

Diffey, T.J. (1986). The idea of aesthetic experience. In M. Mitias (Ed.), *Possibility of the aesthetic experience*. Dordrecht: Martinus Nijhoff Publishers.

Doering, Z. (1999). Strangers, guests, or clients? Visitor experiences in museums. *Curator: The Museum Journal 42*(2): 74-87.

Dolcos & Cabeza (2002). Event-related potentials of emotional memory: Encoding pleasant, unpleasant, and neutral pictures. *Cognitive, Affective, & Behavioral Neuroscience*. *2*(3): 252-263.

Dunn, E.L. & Iso-Ahola, S. (1991). Sightseeing tourists' motivation and satisfaction. *Annals of Tourism Research. 18*: 226-237.

Falk, J.H. & Dierking, L.D. (2000). *Learning from museums: Visitor experiences and the making of meaning*. Walnut Creek, CA: Alta Mira Press

Goulding, Christina (2000). The museum experience and the visitor experience. *European Journal of Marketing*. *34*(3/4): 261-278.

Graburn, N. (1977) The museum and the visitor experience. *Roundtable Reports*. 1-5.

Harrison, P. & Shaw, R. (2004). Consumer satisfaction and post-purchase intentions: An exploratory study of museum visitors. *International Journal of Arts Management*. *6*(2): 23-32.

Hayes, A.F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs. 76*(4): 408-420.

Hayes, A.F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com

Hennes, T. (2002). Rethinking the visitor experience: Transforming obstacle into purpose. *Curator: The Museum Journal*. *45*(2): 105-117.

Holbrook, M. & Hirschman, E. (1982). The experiential aspects of consumption: Consumer fantasies, feelings and fun. *Journal of Consumer Research*. *9*(2): 132-140.

Hooper-Greenhill, E. (1999). Education, communication and interpretation: Towards a critical pedagogy in museums. In E. Hooper-Greenhill (Ed.), *The educational role of the museum*. London: Routledge Psychology Press.

Hosany, S. & Gilbert, D. (2009). Measuring tourists' emotional experiences toward hedonic holiday destinations. *Journal of Travel Research. 49*(4): 513-526.

Hosany, S. & Prayag, G. (2011). Patterns of tourists' emotional responses, satisfaction, and intention to recommend. *Journal of Business Research.* doi: 10.1016.j.jbusres.2011.09.11

Hosany, S. & Witham, M. (2010). Dimensions of cruisers' experiences, satisfaction, and intention to recommend. *Journal of Travel Research*. *49*(3): 351-364.

Iso-Ahola, S. (1989). *Social psychological perspectives on leisure and recreation.* Springfield, IL: Charles C. Thomas Publisher.

Jensen, J. D., King, A.J., Carcioppolo, N., Davis, L. (2012). Why are tailored messages more effective? A multiple mediation analysis of a breast cancer screening intervention. *Journal of Communication*. Doi: 10.1111/j.1460-2466.2012.01668.x

Kaplan, R. & Kaplan, S. (1989). *The experience of nature: A psychological perspective.* New York: Cambridge University Press.

Kiel, G.C. & Layton, R.A. (1981). Dimensions of consumer information seeking behavior. *Journal of Marketing Research*. *18*(2): 233-239.

Kirchberg, V. & Troendle, M. (2012). Experiencing exhibitions: A review of studies on visitor experiences in museums. *Curator: The Museum Journal*. *55*(4): 435-452.

Kleiber, D., Walker, G., & Mannell, R. (2011). *A social psychology of leisure*. State College, PA: Venture Publishing, Inc. 2nd Ed., p. 51-179

Knudson, D., Cable, T., & Beck, L. (2003). *Interpretation of cultural and natural resources*. State College, PA: Venture Publishing, Inc.

Kotler, N. (1999). Delivering experience: Marketing the museum's full range of assets. *Museum News*. May/June.

Kotler, N. & Kotler, P. (2000). Can museums be all things to all people?: Missions, goals, and marketing's role. *Museum Management and Curatorship*. *18*(3): 271-287.

Lee, J., Graefe, A.R., & Burns, R.C. (2004). Service quality, satisfaction, and behavioral intention among forest visitors. *Journal of Travel & Tourism Marketing. 17*(1): 73-82.

Lewis, G. D. (2013). History of museums. *Encyclopedia Britannica*. Retrieved from http://www.britannica.com/EBchecked/topic/398827/history-of-museums

Mannell, R. & Iso-Ahola, S. (1987). Psychological nature of leisure and tourism experience. *Annals of Tourism Research 14*: 314-331.

Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: Conceptualization, measurement and application in the catalog and internet shopping environment. *Journal of Retailing*. *77*: 39-56.

McKercher, B., Cros, H. D., & McKercher, R. B. (2002). *Cultural tourism: The partnership between tourism and cultural heritage management*. Binghamton, NY: Haworth Hospitality Press.

McManus, P. (1996). Museum and visitor studies today. *Visitor Studies: Theory, Research, and Practice.* 8(1): 1-12.

Moscardo, G. (1996). Mindful visitors: Heritage and tourism. *Annals of Tourism Research*. *23*(2): 376-397.

Murtagh, W. J. (1988). *Keeping time: The history and theory of preservation in America.* New York, NY: Main Street Press.

National Association for Interpretation (2007). *The definitions project*. Retrieved from http://www.definitionsproject.com/definitions/index.cfm

Neulinger, J. (1981). *The psychology of leisure*. Springfield, IL: Charles C. Thomas Publisher.

Newsome, D., Moore, S. A., & Dowling, R. K. (2012). *Natural area tourism: Ecology, impacts and management* (58). Tonawanda, NY: Channel View Books.

Noss, R. F., & Cooperrider, A. (1994). *Saving nature's legacy: Protecting and restoring biodiversity*. Washington, DC: Island Press.

Oh, H., Fiore, A. M., & Jeoung, M. (2007). Measuring experience economy concepts: Tourism applications. *Journal of Travel Research. 46*: 119-132.

Otto, J. & Ritchie, JR Brent (1996). The service experience in tourism. *Tourism Management*. *17*(3): 165-174.

Packer, J. (2008). Beyond learning: Exploring visitors' perceptions of the value and benefits of museum experience. *Curator: The Museum Journal 51*(1): 33-54.

Packer, J. & Ballantyne, R. (2002). Motivational factors and the visitoreExperience: A comparison of three sites. *Curator: The Museum Journal 45*(3): 183-198.

Pekarik, A. (2010). From knowing to not knowing: Moving beyond 'outcomes.' *Curator: The Museum Journal*. *53*(1): 105-115.

Pekarik, A., Doering, Z., & Karns, D. (1999). Exploring satisfying experiences in museums. *Curator: The Museum Journal 42*(2): 152-173.

Pekarik, A. & Mogel, B. (2010). Ideas, objects, or people? A Smithsonian exhibition team views visitors anew. *Curator: The Museum Journal*. *53*(4): 465-482.

Pekarik, A. & Schreiber, J. (2012). The power of expectation. *Curator: The Museum Journal 55*(4): 487-496.

Peterson, R.A., & Merino, M.C. (2003). Consumer information search behavior and the internet. *Psychology & Marketing 20*(2): 99-121.

Pine, B. J. & Gilmore, J.H. (1999). *The experience economy: Work is theatre and every business a stage*. Boston, MA: Harvard Business School Press.

Pontin, K. (2006). Understanding museum evaluation. In *Responsive museum: Working with audiences in the twenty-first century.* Burlington, VT: Ashgate Publishing Company.

Powell, R.B. & Ham, S.H. (2008). Can ecotourism interpretation really lead to pro-conservation knowledge, attitudes and behaviour? Evidence from the Galapagos Islands. *Journal of Sustainable Tourism*. *16*(4): 467-489.

Prentice, R., Witt, S, & .Hamer, C. (1998). Tourism as experience: The case of heritage parks. *Annals of Tourism Research 25*(1): 1-24.

Quadri-Felitti, D. & Fiore, A.M. (2012). Experience economy constructs as a framework for understanding wine tourism. *Journal of Vacation Marketing 18*(1): 3-15.

Richards, G. (2001). The experience industry and the creation of attractions. In G. Richards (Ed.), *Cultural Attractions and European Tourism*. New York, NY: CABI Publishing.

Roberts, L. (2002). Outcomes and experience: New priorities for museums. *Curator: The Museum Journal*. *44*(1): 21-26

Rothstein, E. (2012, March 23). History carved out of the hills. *New York Times*. Retrieved from http://www.nytimes.com/2012/03/24/arts/design/the-natural-history-museum-of-utah-in-salt-lake-city.html

Screven, C.G. (1993). Visitor studies: An introduction. *Museum International*. *178*(2): 4-5.

Shanks, M., & Tilley, C. Y. (1992). Re-constructing archaeology: Theory and practice. New York, NY: Routledge.

Silverman, L. (1995). Visitor meaning-making in museums for a new age. *Curator: The Museum Journal. 38*(3): 161-170.

Simpson, K. (2000). Customer satisfaction and behavioural intentions in a rural community museum environment. *Journal of Quality Assurance in Hospitality & Tourism*. *1*(3): 1-27.

Smith, C.S. (1989). Museums, artefacts, and meanings. In P. Vergo (Ed.), *The New Museology*. London: Reaktion Books.

Snepenger, D., King, J., Marshall, E. & Uysal, M. (2006). Modeling Iso-Ahola's motivation theory in the tourism context. *Journal of Travel Research*. *45*: 140-149.

Tilden, F. (1977). *Interpreting our heritage*. Chapel Hill, NC: The University of North Carolina Press.

Tomas, S.R., Scott, D., & Crompton, J.L. (2002). An investigation of the relationships between quality of service performance, benefits sought, satisfaction and future intention to visit among visitors to a zoo. *Managing Leisure. 7*: 239-250.

Utah Geological Survey (2011). *Lake Bonneville: A brief history*. Retrieved from http://geology.utah.gov/utahgeo/gsl/flash/lb_flash.htm

Utah Tourism Industry Coalition (2012). *State of the tourism industry in Utah*. Retrieved from http://utahtourism.org/wp-content/uploads/2010/01/2012-state-of-tourism-v11.pdf

Voase, R. (2002). Rediscovering the imagination: Investigating active and passive visitor experience in the 21st century. *International Journal of Tourism Research*. *4*: 391-399.